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OCTOBER 1995, VOLUME III, NUMBER 9

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Reviews:
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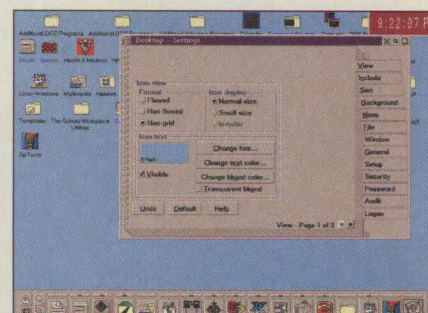
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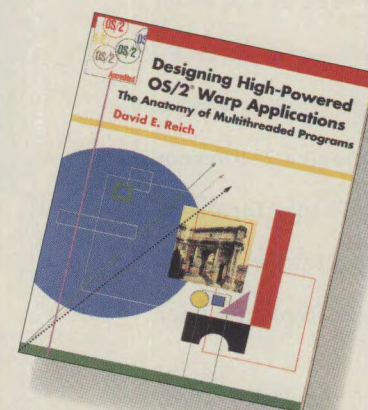
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COVER DESIGN: KIRSTEN M. GAFNEY

Even Houdini couldn't change partitions any faster.



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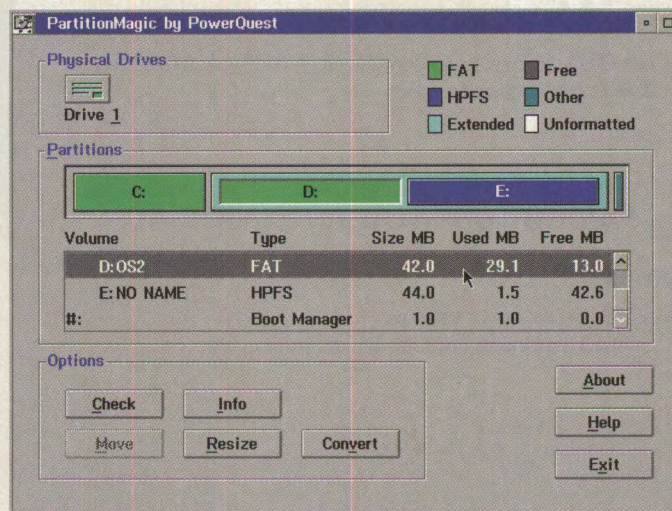
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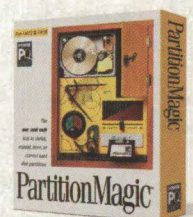
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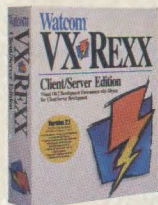
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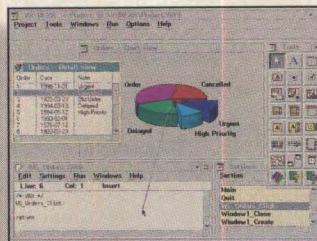
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Angry and Ready for the Backlash

BY EDWIN BLACK

I'm writing this just days after the launch of Windows 95. And I'm angry.

I'm angry at just about everyone. At Dan Lautenbach for running PSP as a completely solipsistic division that is fundamentally brain dead, remains out of touch with its market and its customers, arrogantly shrugs off its poor performance, gags its own best talents and has utterly failed in its mission to make Warp succeed. It's no wonder most of the advertising, marketing and press relations people working for Warp have quit or transferred out—many in the weeks before Win95 launched. Dan, you were the one who said, "The buck stops here." Someone has to take responsibility for the Pimple People campaign, the "OS/2 obliterates my software campaign," the 48-flavor approach to Warp products that befuddles the channels and the IS community alike, and for abdicating the media campaign.

I'm angry at the larger part of IBM for allowing PSP to stay at the helm of Warp and drive OS/2 into the ground. Equally bad, the larger part of IBM punishes its best associates in the channels and development community, and makes working with it a nightmare. The adage that IBM hurts its friends and courts its adversaries is so true for Warp that it has driven away many of the OS's most important partners.

I'm angry at the computer and technology press for picking on IBM like school kids picking on the class cripple. That's right, IBM is stupid, clumsy and arrogant. But they have a great product. Yet the computer press treats OS/2 like it doesn't exist, and Windows 95 like a major bullet. Instead, they should have been warning America not to be taken in by a product that is hardly revolutionary and is not even ready. To the disservice of their readers and the computing world, they jumped on the very bandwagon they helped create. Was it decent or professional of Peter

Lewis of the *New York Times* to invite David Barnes to his home for some personal help, guy-to-guy, and then publish the off-hand remarks that any professional journalist should know would be off the record. Shame on you, Peter. Your article was disgraceful and uncalled for. And IBM, being a cripple, refused to answer back. And yes, I can confirm that the Barnes article and companion distortion about supposed remarks made by Louis Gerstner to financial analysts had an immensely negative impact on OS/2.

I'm angry at the general media for covering the hype of the Win95 Launch and fabricating a scenario that claimed that drag-and-drop and multitasking were brand new concepts—as though OS/2 and Macintosh never existed all these years. They should have been warning the public that as mission critical America switches to Win95, corporate America could come to a screeching halt. But it's too inconvenient for the mainstream media to oppose the hype—indeed the myth—that is Windows 95.

And I'm angry at *OS/2 Professional* and myself because I know we could have done more. We cajoled, we embarrassed, we praised, we boosted, we demanded, we pleaded, but little changed, although Mr. Reiswig is now gone. We should have done more.

Now that I have vented, here are some facts: OS/2 is alive and well. On the day Win95 shipped, OS/2 Express had its best day of the year. Every day thereafter, we enjoyed record setting days as our corporate and governmental customers made major multiple purchases. IBM products and OS/2 apps are selling better than ever. As I said last month, OS/2 will only become stronger following the backlash against Win95, which is already happening. The bottom line for all who care about OS/2—including me, is: don't get angry, get even. Stick with OS/2. ♦



FLY HIGHER!

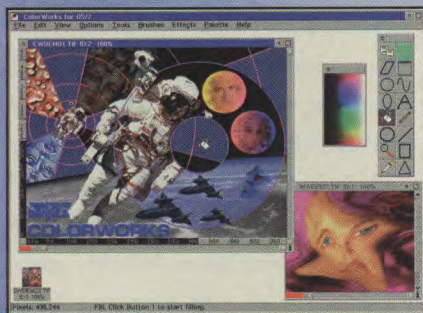
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Comments, criticisms, and observations

Lotus a lifesaver

I believe that the IBM takeover of Lotus was an excellent business move and can do nothing but help the OS/2 market and public, contrary to the tone of your article *Tender Offerings* in the July/August issue. Jim Lennane has done nothing but whine about various reasons that DeScribe is (or was) losing money, ranging from widespread software piracy to IBM treachery. As for Corel ceasing development, we are all aware of the depth of Corel's commitment to OS/2. Are they ceasing Windows development because of the presence of Microsoft Office?

Lotus SmartSuite is aimed primarily at the corporate market where there is a heritage of 1-2-3 usage. Small developers such as DeScribe should concentrate on marketing to the individual who wants a specific feature and wants it now. Athena, Hilgraeve and Innoval (by personal experience) are excelling at this as is apparently Clearlook. Why would I switch to SmartSuite when I have tried them and found them lacking? On the other hand, if I were a corporate buyer, I would not worry about the future of Lotus. Instead I would be encouraged to commit to OS/2 because I am now guaranteed a stable office product comparable to Microsoft Office.

Jayant Murthy
via the Internet

Bully for you

I have been reading *OS/2 Professional* since the beginning, along with numerous other trade magazines in my 12-year career as a Software Developer. I am totally impressed with your integrity in reporting the truth despite such bul-

lying tactics as you reported in your editorial [*Publisher's Memo*, June].

This is the first time I've ever written to any trade magazine, but I felt it was extremely important to express my appreciation and respect, and let you know it has not gone unnoticed.

Keep up the good work, and don't let Big Blue, or anyone else, bully you out of reporting the truth!

Cheryl Miller
St. Louis, Missouri

Bounds rebuff

In your July/August Input section, Edmond Jane of Washington, DC asked about bounds buffering. As someone who never heard about the problem with increasing RAM to 32-MB until I read his letter, I share Edmond's concerns. I too am using a 486 DX2 VESA Local Bus motherboard and currently have 16MB RAM in Bank 0 (also 4x4M 60ns chips). In addition, I also have the Adaptec 2842 VL SCSI-2 adapter, as well as VLB

multi-I/O adapter and ATI Graphics Ultra Pro adapters.

Your reply, however, was a bit less than perfect. You managed to explain the problem sufficiently, but you did not offer a complete answer to Edmond's question. You mentioned the Adaptec 154x series of controllers, but made no mention of the 284x series, which are also bus mastering adapters. In addition, you did not describe the method by which to activate bounds buffering. Even though I am technical and work in the industry, I do not know which device driver Edmond spoke of, where to obtain it, or where to find documentation concerning it. If you could elaborate, I would very much appreciate it.

Marc Rosenthal
Rego Park, New York

The bounds buffering is automatically activated by OS/2 when necessary; there is no manual control. As stated in the July/August reply, VLB (such as the Adaptec 284x series) and PCI (the 294x

continued on page 13

The following is IBM Chairman Louis Gerstner's official reply to the NY Times August 4, 1995 interpretation of his remarks to analysts:

In [the August 4, 1995] edition of the *New York Times*, there was an article that misinterpreted statements regarding OS/2 I had made at a meeting with securities analysts.

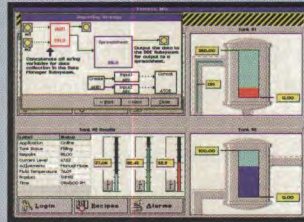
My statements were regarding the fact that OS/2 is the market leader in enterprise and commercial accounts and that IBM's primary OS/2 focus is to maintain that leadership. The consumer and stand-alone desktop markets for OS/2 are growing but are secondary to our emphasis on robust line-of-business client/server applications for our enterprise customers.

OS/2 is one of the cornerstones of the IBM software strategy. We remain committed to its success.

Louis V. Gerstner, Jr.
Chairman and CEO, IBM

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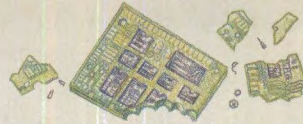
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BYTES & PIECES

News and trivialities, important and obscure

Tape pace

Desktop and LAN Client machines have long been without a really good tape drive option that combines capacity and reliable, efficient operation with low price. Many users have discovered that QIC mini-cartridge drives running off the floppy simply have not kept pace with the ever increasing capacities of hard disks (commodity pricing is now hitting the gigabyte range). Moreover, in OS/2's multitasking environment, the mini-cartridge seems prone to errors and a simple backup sometimes requires more than one attempt. The faster, more reliable alternative, SCSI, has traditionally held a price premium that kept it just out of reach for many users' budgets.

Enter the new 3040 QIC wide tape cartridge (Travan) and compatible drives from vendors such as APS and Conner. Sporting a 2GB uncompressed capacity (that should stretch to 4GB uncompressed with extended length tapes due within the first half of next year), the new drives should be priced under \$400 and will support either EIDE or SCSI interfaces. Finally, the capacity of a commodity tape drive will exceed the largest popular hard disks, with a built-in upgrade already in place. Expect these drives to take the market by storm. And expect Computer Data Strategies, with a new version of BackAgain/2 Pro for the EIDE market, to capitalize on this development.

Who is it?

"Hi! I am in IBM Media Relations but fortunately not PSP. I have been reading your publication for a while, and was quite amused by your *Dismantle PSP* column, and thought it was right on target."

So begins a long anonymous

message recently left on the voice mail of *OS/2 Professional* editor-in-chief Edwin Black. Although the IBM staffer did not give his name, *OS/2 Professional* has since verified his identity both among magazine sources and IBM staffers who know the voice. We have dubbed him Deep Frustration. His message continues:

"More recently I saw an excerpt from something that you wrote about the departure from the Media Relations staff of Alison Johnson and Keith Lindenberg. ...the exodus is much more significant than that; basically what is left there are hacks, a bunch of youngsters, and [name omitted] cronies." DF then went on to name four more leading PSP Media relations people who have recently resigned or transferred out. *OS/2 Professional* has verified the departures. "I don't expect it will stop there. PSP is no fun to work with as you probably know, either internally or externally. You are right about the chaos, and I can see you writing more articles about that. So enjoyed reading your stuff...Keep it up!"

Deep Frustration is only the first in a long line of thinly disguised "anonymous"—and some not so anonymous—calls which have come to our voice mail from frustrated IBM execs. In previous calls, we have heard from Deep Chip, Deep Texas and Deep Blue, all complaining about problems at PSP. The cited problems have ranged from financial misconduct, to

improper firings, to inter-departmental warfare, to chaos in advertising and marketing, to some topics which are so sensitive, we prefer not to air them in this magazine.

Call again, Mr. Frustration. And please, for documents, use our fax machine.

OS/2 Oz

Any dreams Lou Gerstner may have of an OS/2 Oz have already come true in India. There, IBM's OS/2 is the operating system of choice at home and in the office, and Microsoft is uncooperative, unpreloaded and too expensive, says Rishab Aiyer Ghosh, publisher of *The Indian Technomist Bulletin*.

Ghosh's newsletter, available at his web site, <http://www.c2.org/~rishab/technomist/>, recently announced that IBM gave away 40,000 free CD-ROM copies of OS/2, PC DOS 7, Lotus Notes and Virtual n'gineer as part of a promotional deal with the Indian-based *PC Quest* magazine. IBM, together with its Indian joint venture Tata Information Systems Limited, gave the magazine the go ahead to produce the CD-ROMs itself using its own copy of Warp, Ghosh said. And although the package specified a 90-day licensing period, Ghosh noted that no copy protection was specified for OS/2 and PC DOS 7, and that there was "nothing preventing you from using them for more than 90 days," he said.

Ghosh said India's long tradition of pirating software has only helped OS/2 in the end. "It's like shareware. Everyone used Windows and everyone used OS/2, and they go and buy OS/2."

IBM also has been able to take better advantage of the Indian market than the U.S.'s. "There is no IBM/India," Ghosh explains. "IBM came back over here in 1990 with Tata and decided to form an equal partnership, because Tata has a strong brand name over here." Ghosh estimates IBM is not far behind Hewlett-Packard, which is the most successful U.S.-Indian venture, he says, because it teamed up with the largest Indian company.



BYTES & PIECES

By contrast, Microsoft has not teamed up with an Indian company and is unpopular with the local trade magazines and consumers. "Microsoft is very difficult to get reviews from and very slow to cut their prices," Ghosh says, adding that the company has refused to give out demo copies of Win95. A copy of Windows software costs the equivalent of \$200 U.S. dollars, Ghosh says, while OS/2 costs less than \$100. Ghosh says the fact that Indian computer companies don't have preloading agreements also helps IBM as much as its marketing tactics.

"IBM certainly is pushing OS/2 a lot over here," Ghosh says. "And like in Europe and Germany, the office users got quite bored waiting for Microsoft to be good enough to run their machines. The office users (here) certainly are not going to go in for Win95."

Proper attire required

While the Internet's OS/2 newsgroups are arguably some of the best sources for up to date assistance and information on OS/2, weeding through the hundreds of sometimes banal, chit-chat messages can send even the most loyal fact-finding bloodhound back to the doghouse. If you're looking for a place where bandwidth-conscious OS/2 users get down to business to discuss the finer points of OS/2-ing check out the *OS/2 Professional Magazine Conference* on BIX.

Here you'll find *OS/2 Professional's* Wizard and his acolytes interfacing with some of the OS's pioneers, discussing the day to day events that affect OS/2. The *to.editors* forum features letters to the editor, while forums such as *tips*, *hardware* and *software* contain questions and answers about various

OS/2 technical issues. You'll also want to check out *ossie*, the industry gossip forum and *bit.bucket*, "a place for readers and editors to relax." Whether you're lurking just to see how Jerry Pournelle responds to readers' opinions or posting a technical question, the *OS/2 Professional Magazine Conference* is a civilized haven for the savvy OS/2 user.

If you'd like to give BIX a test run you can now get a trial subscription with five hours of connect time for five dollars. BIX requires no special communications software, just set your communications program to dial (800) 695-4882. You'll receive a user i.d. and a password. To get to the *OS/2 Professional Magazine Conference*, follow the menu to Conferences and choose the vendor support conferences where you'll find OS2.PRO. ♦

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For more information circle #234

Available through OS/2 Express

INPUT

continued from page 9
series) do not activate bounds buffering.

However, bounds buffering affects the system as a whole—not just one adapter. So if you mix a DMA ISA such as the 154x series in with the PCI, EISA and/or VLB adapters, you will be restricted to bounds buffering. According to Jim Lewis of IBM technical support, the trick is to make sure that any accessory using DMA is equipped to handle 32 bits, and is not restricted to 24 DMA. Lewis also added that he is unaware of any documentation concerning bounds buffering.—Bradley Klierwer

Environmentally friendly

I would like to suggest an enhancement to the Workplace Shell. IBM should add a new page to the program objects settings page for environment settings page. On this page a user, or installa-

tion program, could specify environment variable settings that are needed for this program to run (i.e. `PATH=c:\myprog;%PATH%`). The settings would be active only for the one process. The great advantage is that the `CONFIG.SYS` would not need to be updated for each installed product. Even the `LIBPATH` can be set for a process in Warp by using the `BEGIN-LIBPATH & ENDLIBPATH` environment variables.

Sol Fried
via the Internet

Kornered

Losing Zachmann was bad enough. I hope you haven't lost Kogan now as well. His columns have been some of the most clear-headed, bias-free, perceptive, insightful and sophisticated-

yet-accessible writings on computing that I have encountered in any publication. In a field with so many lightweights, cheerleaders and blowhards (none of whom, fortunately, write for *OS/2 Pro*), Kogan's columns have been a steady breath of fresh air. His columns are always interesting, I always learn something new from them, and he has even changed my thinking completely on at least two issues, which (unfortunately) is not an easy thing to do!

I hope he's just on vacation. If he's gone for good, he will be sorely missed!

William G. Laffer III
Alexandria, Virginia

Unfortunately, Michael Kogan was offered a position with Motorola, which precludes his writing for industry publications. We wish him the best.—Bradley Klierwer ♦

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System requirements: IBM OS/2.2.1 or greater, and support for most SCSI tape drives

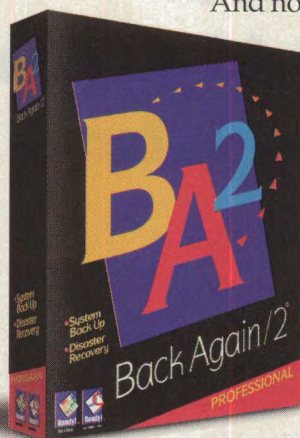
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The Corporate Commitment

BY BRADLEY D. KLIEWER

The release of Windows 95 has had some interesting effects on the OS/2 community. On the development and marketing front, IBM finally seems to be getting a handle on the OS/2 market. It has recognized the value of a niche market based on corporate requirements. But, because the masses look primarily to personal computer applications as the driving force in computing, IBM will have a tricky PR task on its hands in keeping OS/2 healthy.

For example, on the boards people debate whether IBM should support Windows 95 applications running directly on an OS/2 platform. Some believe that OS/2 must run Windows 95 applications to remain a viable alternative. Others believe Windows 95 support would erode the already tortoise like pace of new application development. But the focus here is on the wrong question. It does not matter how (or even whether) IBM delivers Windows 95 support so long as OS/2 has native 32-bit applications.

For the record, IBM has emphasized that direct execution of Windows 95 programs is not forthcoming. Instead it will provide access to APIs that mimic Windows 95, creating an environment where a common code base can be compiled to OS/2, Windows 95 and Windows NT. If IBM decides to stay with this strategy, however, then it must develop strong incentives for vendors to port applications. Without demand for native apps, porting tools will not entice new developers no matter how easy they are to use.

OS/2's primary advantage over Windows 3.1 and Windows 95 is that it runs popular applications in a robust environment suitable for the corporate enterprise. Corporate needs, addressed by network-centric IBM products such as LAN Server, DB2 and Communications Manager, leverage benefit from a platform that continues to gain support from hardware and third-party software vendors. All three products rely on network communications. Just

two years ago, a mere handful of network adapters supported OS/2.

Today, it's difficult to find an adapter that does not support OS/2. Obviously, a market of millions of OS/2 network clients is more attractive than hundreds of thousands of OS/2 servers. Similarly, critical corporate systems require effective backup, and backup software options continue to increase (currently there are about a dozen). Video adapter support, so important to the increasingly useful interfaces on corporate products, continues to

grow rapidly. Likewise, critical system utilities rely on broad market acceptance for sustained growth and improvement.

Effective drivers, utilities and video are important cornerstones for a platform that runs IBM's own products for accessing mainframe and midrange operating systems (such as MVS and OS/400). Products such as VisualAge (both Smalltalk and C Set++), VisualRPG and ISPF may not catch the interest of the typical PC user, but they certainly enhance the corporate IS environment. As a result, IBM's most profitable systems rely on a foundation that includes

OS/2. That's not to say OS/2 is essential—AIX plays an important role too. But OS/2 is a key corporate product—a fact that is often lost on the majority of users and mainstream journalists who deal only with the PC portion of the computing spectrum.

Of course, that spectrum can't be ignored; end users need a solid base of native applications such as word processors, spreadsheets and end user databases. The new SmartSuite will be a good first step. If the OS/2 application market were to dwindle, the domino effect would cause stagnation of the very products that make OS/2 a strategic corporate platform. More importantly, IBM would lose substantial influence over the very interface that controls access to their most profitable systems (just as they lost influence over the PC hardware standards). IBM need not dominate



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THE WIZARD OF OS/2

the desktop; only provide a healthy alternative, as Apple has with the Macintosh.

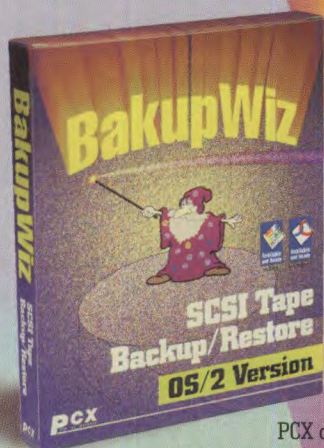
IBM must focus on developing creative strategies to stimulate and sustain the third-party market. Unfortunately, while IBM has introduced several programs over the past few years, it has paid only lip service to the developers. One ISV recently told me that he had actively avoided signing with an IBM program because of its reputation among other ISVs. A company that can drop a few billion dollars to acquire a strategic product (Lotus Notes) could certainly budget a few million annually for effective efforts that would entice programmers to exploit unique OS/2 features (such as the Workplace Shell and OpenDoc) or port applications from Windows.

In a healthy computing environment, a successful niche requires progress and leadership. Some ask whether IBM can afford to lose money on OS/2. That is not the question. The real question is whether IBM can overlook a substantial investment in its computing future. As senior executives have repeatedly affirmed, IBM remains committed to OS/2 for years to come. But commitment is one thing; acceptance by corporate buyers is another. The next few quarters will be telling.

The best indicator of OS/2's long-term health will be its application base in April '96 (the fourth anniversary of 32-bit OS/2). By April, IS managers will have had enough time to evaluate Windows 95 and its viability as a step to its corporate cousin, NT. By then, OS/2 must either have enough working applications to justify its existence as a corporate desktop platform, or Windows 95 must exhibit so many problems (or so few applications) that Microsoft loses credibility. The latter, while possible, does not seem likely. In the meantime, IBM has about six months to solidify the OS/2 application market. The pieces are there; now they must be fit together—not an impossible task, but a definite challenge. ♦

Coming up in November/December

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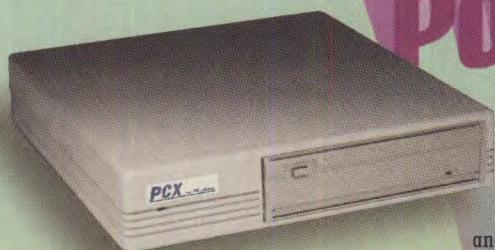
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PCX also works hard to keep you satisfied after the sale with outstanding customer support. Being a small and aggressive company means that we can respond to your needs that much quicker.

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from 250 megabytes to 10 gigabytes. Offering backup speeds from 6 to over 18 megabytes per minute when using a high speed, bidirectional printer port, units in the PortaTape series are priced from \$995.

Members of the PortaTape series utilize a range of SCSI tape drives including 1/4 inch, 4mm, and 8 mm mounted in low profile external enclosures. Connection to the host system is via the system's parallel printer port, which may be utilized concurrently with tape drive operation. A copy of OS/2 BackupWiz

is included with each PortaTape.

PCX also markets a complete line of standard SCSI tape backup units ranging in capacity from 250MB to over 10GB. Available in both internal and external models, these units are priced from \$550. For very large backup needs, PCX offers robotic tape loader mechanisms from 48GB to over 1 terabyte.

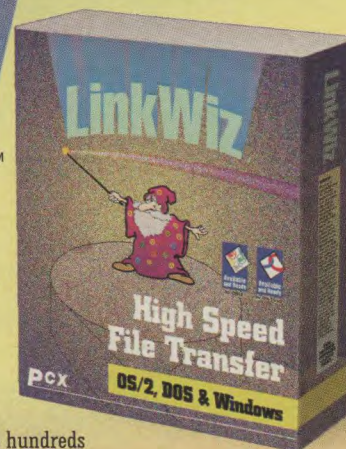
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NOTABLE NOTEBOOKS



While Warp and Warp Connect deftly handle desktop diversity, they remain uncomfortable on laptops.

Features endemic to the platform such as power saving modes and PCMCIA interfaces vary from vendor



to vendor and even from machine to machine in some product lines. With the exception of the PCMCIA cards,

every piece of the system tends to be proprietary—display, hard disk, floppy, CD-ROM, special keyboard combinations, all the way down to the battery. As a result,

OS/2 Warp (or anything more advanced than DOS) may

not support every last feature of a laptop, even from some of the largest vendors. As you read the individual accounts

below, written by *OS/2 Professional* staffers, you'll find

quirks unique to each machine.



Like their desktop cousins, you will be best served with

plenty of memory in the laptop. If you can live with the

slow load times, 8MB might actually be livable on

a laptop—particularly if you don't make heavy use



of Windows applications. While true multitasking

may require 16MB, the limited display real estate on a

laptop will hinder any realistic attempts to push your

application load very high. However, this does point to

one potential pitfall in laptop strategies: using the system

as a portable desktop for home, office and the road. You're much better off using the laptop as an adjunct for on the road use unless your desktop usage remains fairly limited.

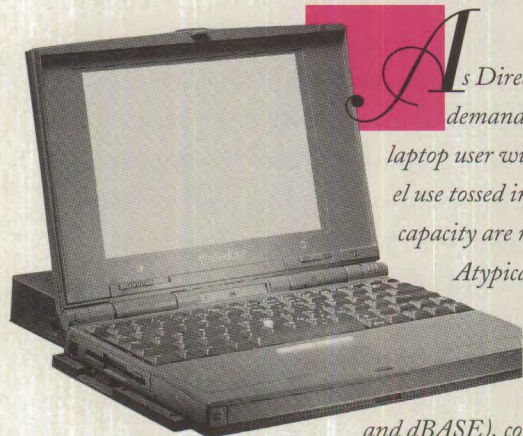
If you ignore the immediate driver and hardware limitations of a laptop when considering it for desktop use, don't overlook its future. Laptops simply lack the upgradeability a desktop unit pro-

vides. While desktop systems can manage to remain quite usable for five or more years, laptops hit their usable limits within about two years. Replacement and upgrade parts are either unavailable or just too expensive.

In short, a laptop is a very expensive (but immensely useful) disposable platform.

The WinBookXP

BY CHRISTOPHER J. WEES



As Director of MIS, I'm a demanding home/office laptop user with occasional travel use tossed in. Performance and capacity are most important.

Atypical applications include heavy database use (DB2/2, Paradox and dBASE), compilers and front

end tools (VisualAge C++, Assembly, Pascal and Visualizer) and numerous system tools. A good insight into my use: within a few days of receiving the WinBookXP, the 810MB hard drive had 90MB free and Warp's initial boot-up time increased from 45 seconds to three minutes.

WinBookXP Specs

Intel 486 DX4/100 SL Enhanced Processor

16MB RAM

810MB Hard Drive

10.3-inch Dual Scan STN color display

16-bit internal audio option

Internal 14.4K fax/voice/data modem option

Dual-button Alps modular integrated touchpad option

2500ma/h Nickel Metal Hydride Battery

PCMCIA (2.01 compliant): two type II or one type III

Integrated TrackPoint pointing stick embedded in keyboard

16-bit stereo ESS 688, SoundBlaster compatible

Price: \$3,459

notebooks. The unit ships standard with DOS and Windows, and WinBook Computer Corporation does not support OS/2. However, one should not judge this notebook by its cover logo. The model I received for evaluation is well equipped to run OS/2, sporting an Intel 486 DX4/100, 16MB of RAM and an 810 MB hard drive.

Augmenting the keyboard-embedded TrackPoint pointing stick, WinBook Corporation also included their optional 19mm Logitech trackball and Alps touchpad modular pointing devices for our testing. Mounted just below the keyboard in the wrist rest, both devices were convenient to use and better suited for moving across wide ranges when compared to the TrackPoint. Of the two, I quickly grew fond of the touchpad's responsiveness and ability to produce mouse clicks by tapping on the pad's surface, although the TrackPoint is more accurate for miniscule movements. Fortunately, the TrackPoint remains active, enabling simultaneous use with the touchpad.

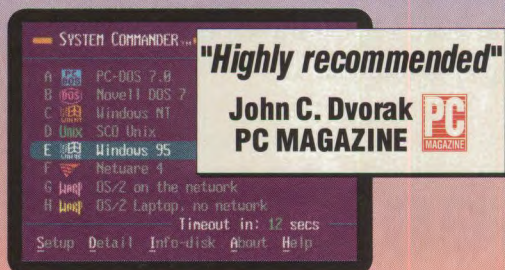
Installing OS/2 Warp Connect on the WinBook was far from flawless. OS/2 detected the Western Digital video properly, but failed to see the audio card or PCMCIA interface. A quick look at the technically rich set of manuals provided with the WinBook resulted in detailed hardware information on both devices, yet only one answer. The notebook's audio was documented as an ESS 688 (which I installed as an AudioDrive multimedia device), but the VADEM VG-468 PCMCIA interface remained an unknown factor. Assuming other notebooks would be compatible with the VADEM (listed as a superset of the Intel 365SL), I repeatedly installed PCMCIA support for several notebooks and found the NEC Versa drivers tolerable.

With Warp Connect up and running, the WinBook performs admirably with few exceptions. The 486/100 processor with

By name alone, the WinBookXP from WinBook Computer Corporation does not sound like an OS/2 enthusiast's choice of

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20 OS/2 Professional October 1995

16KB integrated cache is fast and the 16MB of system RAM leaves plenty of room for network drivers and several apps to reside in memory, making response snappy. Standard applications like Lotus 1-2-3 and DeScribe load in less than 20 seconds flat. Battery life is very good, the first evidence coming from the initial OS/2 Warp install. The 90-minute installation process involving dozens of disks and several reboots only drained 80 percent of the battery power. Under normal operation, the WinBook lasts from two to three hours with power management enabled.

I did find a few flaws during operation. At first the WinBook's suspend switch does not appear to function. I have seen this behavior with a number of notebooks and assumed the suspend mode was simply incompatible with Warp. To my great surprise, the WinBook suddenly suspended while attempting to run a Windows application several minutes later. Apparently some component of the notebook's suspend hardware is tied to Windows code. The work around: running any Windows app after booting OS/2 enables the suspend/resume feature.

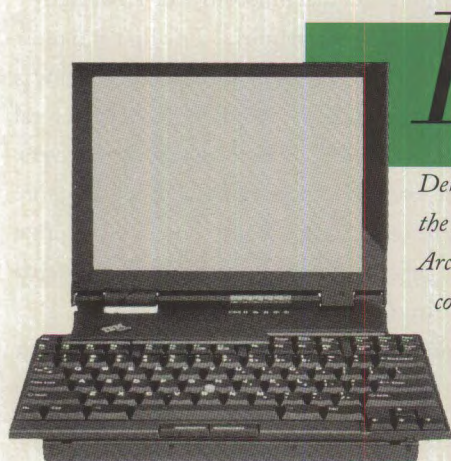
A second problem stems from a Western Digital video driver bug when using the Phoenix Notebook Miser BIOS setting for "suspend to disk" operation. This type of suspend is highly desirable, since it consumes no battery power and is thus indefinite. However, with this option enabled, resuming to the desktop produces a corrupt video image that is unreadable. Luckily, I found a work around for this problem also: suspend to disk *only* from a full screen session. Upon resuming, exit the session and you will return to a normal OS/2 desktop. You can also recover from a corrupt display by running a full screen session upon resuming, but you must open one "blind." Finally, the OS/2 power management battery applet does not display the remaining battery level. The integrated LCD battery gauge does so continuously, however, and does not consume system resources.

Originally designed as a Windows user's dream notebook, the WinBookXP has proven to be a formidable WarpBook as well. Overall system performance is excellent, the host of features is impressive and the \$3,459 price tag is reasonable. If you don't want to spend far too many paychecks on a notebook and can live with a quirk or two until future Warp service packs correct them, take a serious look at the WinBookXP.

.....
Christopher J. Wees is director of MIS for OS/2 Professional.

IBM ThinkPad 701C

BY EDWIN BLACK



I generally use a laptop while traveling to word process in DeScribe, make notes on the System Notepad or Arcadia's Notepad, communicate using PMComm or Fax-Works, and sometimes to use Paradox for DOS in a DOS

session. Battery life is a dominant feature for me. Then come speed and usability.

IBM ThinkPad 701C Specs

Intel 486DX4/75MHz Processor

8MB RAM

540MB Hard Disk (removable)

PCMCIA slot fits two Type II or one Type III cards

10.4-inch Active Matrix Display

14.4 Kbps Data/Fax Modem

85-key TrackWrite keyboard with Fn-Key, 12 Function Keys and TrackPoint III

EPP (Parallel) Port and Audio In/Out on System Unit

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Speaker Phone and Answering Machine

Integrated Infrared Transceiver

Price: \$2,999

After lugging IBM's spiffiest new ThinkPad to some of the world's most exotic locales including the Dead Sea and the top of Mt. Sinai, I can attest: I am in love. I have finally found the ThinkPad of my dreams. Dubbed the *Butterfly* for its retractable keyboard, the 701C is certainly not for everybody. But for me, it is the endgame in a protracted campaign of planned obsolescence that characterizes the laptop and notebook market as we know it.

Understand that the Butterfly embraces an evolution for the road warrior. It possesses all the nifty power capabilities, including Infrared data transfer, CD-ROM, complete multimedia capability and PCMCIA slots. But much of that is on the outside of the computer. The Butterfly achieves its remarkable stripped down dimensions of 9.7 x 7.9 x 1.5 inches by turning all the extras into attachments. Therefore, the parallel and serial port panel is detachable. The 3.5-inch drive is a featherweight detachable floppy that hangs by a slender cable, as is the CD-ROM drive. What remains after all these extras are detached is an incredibly compact 4.5 lbs. notebook.

Its brilliant active matrix screen is exciting, stealing the show on any airplane. The tracking device is extremely sensitive and I was able to execute most of my drag and drop commands on the first effort. The speed of this 486 DX4/100 plus 8MB RAM and its ability to multitask stood out as the best I have ever encountered. I was able to constantly run DeScribe and Arcadia's PIM while using the modem and searching the disk for other data.

While the Butterfly's screen can indeed be used successfully in most indoor environments, the notion of global, all-terrain use is a bit silly. I sat on the patio of Jerusalem's King David Hotel, overlooking the majestic Old City one sunny morning unable to see the screen because of the sun. Again, at the Nirvana Hotel at the Dead Sea—no screen visibility. And finally, on the balcony of the Tel Aviv Hilton on a cloudy day I observed a dim but viewable screen.

The height of my Butterfly experience was a long trek to Mt. Sinai. I carried the Butterfly all the way to the top. There, a little Bedouin boy name Mussa approached and was attracted to the icons on the screen. The boy, who knew very little English, said it all: "Compooter. Good." Even at the top of Mt. Sinai, the Butterfly was inspiring.

A back to Earth footnote...while at the Detroit airport, I was running IBM Works and developing a spreadsheet. The hard disk crashed and I couldn't reboot.

.....
Edwin Black is publisher and editor-in-chief of OS/2 Professional.

Zeos Meridian 850C

BY CLAUDE d'HERMILLON, JR.



Unlike some of my colleagues here at the magazine, I'm not your typical power user. I rarely run anything more demanding than a word processor or a communications program. While my demands may not be system-intensive, they nonetheless must be met consistently. I need a quick processor, a decent

screen, a floppy drive (preferably internal) and on-board accommodations for a modem.

Zeos Meridian 850C Specs

Intel Pentium 75 MHz Processor

16MB RAM

528MB Hard Disk (Now available with 810MB)

PCMCIA fits two Type II cards or one Type III

10.3-inch Dual Scan Color Display

84-key keyboard with embedded numeric keypad and

12 dedicated function keys

Integrated 16-bit stereo sound

Integrated TruePoint pointing device

Price: \$3,795

We added: a 14.4 fax modem

Price: \$149

It was late May and as far as I was concerned, June 28 and my vacation couldn't possibly come soon enough. The deadline for this month's laptop story was drawing near and I thought that if I played my cards right, I'd soon depart for Guadalajara with a ThinkPad in tow.

By mid-June, however, I discovered that the last of IBM's high-end loaners had already been claimed. That's when an assistant put in a call to Minneapolis-based Zeos Information Systems. That was on a Thursday, and by the following Tuesday, a screamer of a notebook with my name on it was in the mail.

Zeos' line of Meridian notebooks includes a DX4-based sub-notebook and several Pentium-driven, full-size packages. I took a look at the top-of-the-line Meridian 850C, which, despite a

couple of flaws, scored relatively high marks. Indeed, what's not to like about a 75 MHz Pentium machine with 16MB of RAM?

As it turned out, there were several quirks. The first and most annoying was the fact that no OS/2-compatible video driver was available for the 10.3-inch dual scan color screen. After several calls and a couple of visits to bulletin boards in search of drivers, I had to get used to the eye strain of working with a little more than 8 inches of viewable screen. Also, since there is no internal speaker, the only way to get sound from the on board 16-bit stereo sound card is through external speakers or headphones.

Aside from these flaws, the other cross I would ultimately bear into Mexico and back was the sheer weight of the 850C. On paper, 6.8 lbs. doesn't appear that cumbersome, but lug it around the airport for a while and you become uncomfortably aware of its bulk. The Zeos' rechargeable nickel metal hydride (NiMH) battery kept the machine alive for about 2 1/2 hours.

Due to the nature of my trip (it was, after all, a vacation) most of my computing tasks involved communicating with colleagues via the Internet and CompuServe. Although I generally prefer internal modems when traveling, I encountered few problems using the 14.4 PCMCIA fax/modem. Sending a note to a colleague or checking out the Web site I discovered reading the in-flight magazine was simply a matter of slipping a card into one of two type II PCMCIA slots. One caveat, however, concerning what I consider a design flaw: the PCMCIA slots are accessed by flipping open a small lid to insert the card. Unfortunately, once in place, the card protrudes beyond the side of the case, making it impossible to close the lid without first removing the card. A minor point to some, but an extra step to frequent users who must not only keep track of the wafer-thin modem, but must also remove it before placing the computer in its carrying case.

In the end, however, this notebook won me over. After using its eraser-like pointing device for a day, I lost all desire to use anything but. The 528MB (1.3 GB optional) hard drive provides ample storage space while traveling, and the 3.5-inch 1.44MB internal floppy drive is, thankfully, placed not on the front of the notebook but on the side for easy access.

At just under \$3,800 the Zeos 850C appears to be a reasonable alternative to the comparable offerings from Toshiba and IBM.

.....
Claude d'Hermillon, Jr., is associate editor of OS/2 Professional.

Toshiba T2150CDT

BY BRADLEY D. KLIEWER



I use my laptops in two modes: as an adjunct to my luggage (mostly as a desktop in the hotel or for a few hours on the plane) or as a way to catch a few bytes while sitting on the couch and watching the news.

As such, it seldom gets used for more than word processing, although it also makes a convenient test bed for new programs—particularly those I'm not quite ready to risk on my two desktop systems.

Toshiba T2150CDT Satellite Pro Specs

Intel 486DX4/75 MHz Processor (with 16KB cache and integrated math coprocessor)

8MB RAM

500MB Hard Disk

PCMCIA slot accepts two Type I or II cards or one Type III

10.4-inch Color Active Matrix Display Monitor

Toshiba double-speed CD-ROM drive

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Built-in microphone and speaker

AccuPoint integrated pointing device

Price: \$3,799

[Ed. note: A Toshiba spokesperson says this model won't be "readily available" to consumers because it's already being replaced by the 400 series, announced in June. A company representative noted that a less expensive version of this model, the T2150S, w/4MB (expandable) RAM and the dual-scan display priced at \$2,999 will be easier to get.]

The Toshiba T2150CDT was the only laptop we tested with a built-in CD-ROM drive. With the size of applications growing at a rapid pace, CD-ROMs have become more of a necessity than an option. Unfortunately, the drive's 5.25-inch format consumes a considerable volume within the system's case, leaving no room for a diskette drive. Like the Butterfly, the Toshiba uses an external connector and cable for the diskette drive. I installed two PCMCIA adapters (a Megahertz 28.8Kbps modem and a Xircom Token Ring adapter) along with Warp Connect—a task that

would have been difficult without the CD-ROM.

Toshiba installed only 8MB RAM on the evaluation unit. While the system was usable, it was not nearly as responsive as it would have been with another 8MB. As configured, the delays in opening (and first using) an application such as DeScribe were quite noticeable. After a few minutes of work, DeScribe became much more responsive as Warp Connect configured itself to the load.

Likewise, the limited memory would not be suitable for extensive multitasking. The small laptop display keeps this from becoming much of a problem, but it is something to consider if you plan to use a laptop connected to a standard monitor and keyboard in place of a desktop model.

Like the IBM models, the Toshiba uses an eraser-head style pointer for the mouse. Instead of using left and right buttons below the spacebar, the Toshiba has concentric semicircles. The larger arc closest to the spacebar acts as the left button, and the smaller acts as the right button. Its layout, which took some getting used to, is made possible by an overly broad wrist rest area below the spacebar. This made the Toshiba very comfortable for its namesake use (on my lap). However, I found the particular contour made striking the keys on the lowest row a bit awkward at times. Also, the undersized (narrow) keys along the left and the right led to typing errors when using those keys (such as inadvertently hitting the Home key rather than Backspace). I was very pleased by the key action and response. Overall the Toshiba's keyboard action is the most comfortable and responsive I have used on a laptop.

Warp Connect properly configured the Toshiba with only one minor problem: it did not auto-detect the PCMCIA type. I correctly guessed that the T4800 drivers would work (others might have worked, too). While the PCMCIA modem worked as a plug and play device, the externally connected diskette drive (which is not PCMCIA) would not. Instead, the system had to be rebooted with the diskette drive connected in order for it to work.

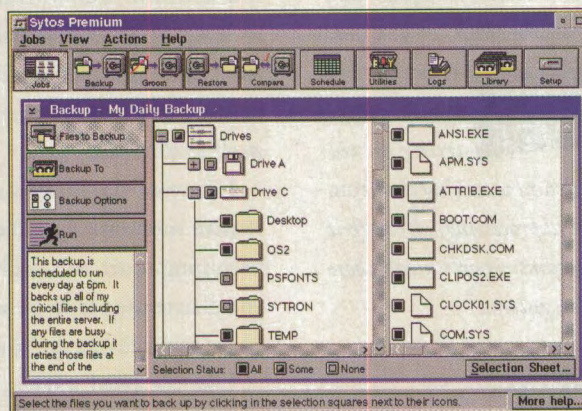
The Toshiba and IBM Butterfly 701C tie for the best among the test units. Moreover, it is very simple to choose between these two based on usage: for the ultimate in small, lightweight mobility, the IBM cannot be beat. If you want CD-ROM access on the road, the Toshiba is a real winner.

Bradley Kliewer is editor of OS/2 Professional.

We've Just Charted A New Course For OS/2 Backup. OS/2 Warp.

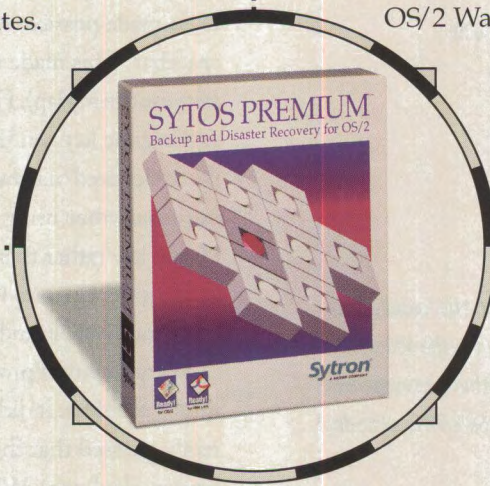
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DOT EXE

Software for OS/2

The Secure Workplace for OS/2

BY HERB TYSON

If you're looking for the ultimate in bulletproof desktop security for your OS/2 systems, you probably won't find it in the Secure Workplace for OS/2. However, if you want to expand your desktop options, including the ability to remove unwanted options from object popup menus and add password protection on an object-by-object basis, then the Secure Workplace is certainly worth a look.

Installation

Installing the Secure Workplace is fairly simple, although depending upon how much security you want setup can be complex. Installation from Secure Workplace's single floppy diskette takes less than five minutes. Once you shut down and reboot, Secure Workplace is ready to roll. Uninstalling is equally simple. To remove Secure Workplace just delete the files and objects and then rerun the setup program using the /remove switch, which de-registers each of the Workplace Shell object classes added by the installation.

For enterprising users, Secure Workplace also allows for unattended installation. Using a response file, you can configure a number of systems identically once you've determined your needs. The program also provides a utility that lets a system administrator, for example, propagate a desktop setup to a number of

systems—helping enforce security in environments across the enterprise.

Operation and Features

The Secure Workplace, as the name suggests, works at the Workplace Shell level by adding several object classes. Once installed, it adds a Protect option to the Desktop popup menu and a Lockup Now option to the popup menu for all other objects. These options are used to invoke security any time the user wants, either for the whole system by using the Protect option, or just for select-

ed objects using the Lockup Now option. One potential use of this selective ability is for when you want to allow someone else to use your system while preventing them from seeing or changing key objects. The selective Lockup Now option lets you password-protect against unauthorized users opening or unlocking an object or changing its settings.

Where Secure Workplace really makes its presence known is in the new options it adds to the Settings Notebook for each object on the desktop. As shown in Figure 1, Secure Workplace adds tabs for Setup, Security, Password, Audit and Logon. These tabs are, in effect, the program's master control panel. With these settings—once you understand them—you can control the amount and level of security you want to use.

Another feature Secure Workplace offers is the ability to

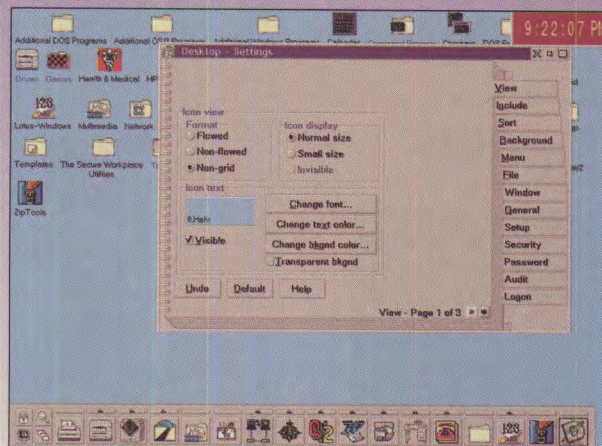


Figure 1. New tabs on each object's Settings Notebook appear after installation.



Figure 2. The Setup page allows users to selectively remove options from the popup menu.

require a logon to use the system. This feature can be dovetailed with the logon feature of a network. It can also be used to set up a single system for a variety of different users.

Secure Workplace provides an Audit feature that lets you keep track of *events*. Unfortunately, neither the Help system nor the manual that comes with the program provides a clue as to what kinds of events are tracked. (Presumably, one event might be logon attempts.) Even worse, each time I enabled the audit feature to see exactly what kinds of events would get tracked, my system froze. Rebooting led to a blank desktop, requiring recovery using the Alt+F1 method to replace the frozen desktop with an archived setup.

Customized Popup Menus

One handy feature is the ability to remove options selectively from the popup menu for the desktop or for any object in the Workplace Shell. As shown in Figure 2, options in the Setup page let you protect objects by removing a number of options, including copying, moving, deleting, shadowing, creating, renaming, dragging and dropping. You can also remove the Set-

tings option from the menu (not recommended if you want to change the settings later on). If you really want to keep users in the dark, you can remove the Help option from the menu, although doing that doesn't disable the F1 key.

In addition, you can selectively disable any folder's Select, Sort and Arrange options. The Find option can also be suppressed, as can the ability to display folders in Details and Tree views. You can thwart potential interlopers by removing the Shutdown option from the Desktop popup menu. However, doing so does not remove the Shutdown option from the LaunchPad, nor does it inhibit the ability to shut down using the SHUTDOWN.EXE program provided with OS/2 Warp, using Ctrl+Alt+Delete, using a system reset key, or simply turning a system off and then on again. However, if as part of your security setup you block all avenues to the command line and turn off the display of the action buttons in the LaunchPad (and password-protect the Settings notebook for the LaunchPad), you can further secure your setup. If your computer's BIOS has built-in password protection, you can complete the secure setup of your system.

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Weak Links

The Secure Workplace has three potential weak links. The weakest one is the OS/2 command line. Since the program works only at the Workplace Shell level, it provides no protection against a knowledgeable user who can access the OS/2 command line. For example, in early tests, I failed to comprehend that passwords were case sensitive. This led to a technical condition known as panic, during which I locked up a key file folder. While in that state of panic, I opened an OS/2 command line session and logged to the locked folder, and discovered that I still had access to it. From the command line, I created a new folder and moved the contents of the locked folder to the new folder. I then deleted the locked folder (using the ancient and time tested RMDIR command) and then renamed the new folder using the now-removed folder's former name. I then slipped back to the Workplace Shell and found that my recovered folder was now accessible and no longer locked.

So, if you plan to use Secure Workplace for security purposes, you would be well-advised to block access to the command line. Just closing the command prompts folder is not sufficient,

by the way. Any novice OS/2 user can use a program template to create a brand new command line object in a flash. Even if you lock the templates away, a clever operator can still use the Create another or Copy commands to create a new object. The user could then modify the new object so that it becomes a command line object. Or, even without copying they could simply change the settings of any existing program object, replacing the program name with *.

If you truly want to block access to Secure Workplace's weakest link, you'll have to password-protect the Settings notebooks of any program objects, as well as remove key options such as Copy and Create another. Even those measures, however, might not be sufficient, since many programs provide the ability to shell to the command line. Therefore you would also need to identify and block access to such programs.

Another weak link is Alt+F1. Secure Workplace was designed before Warp. In previous versions of OS/2, pressing Alt+F1 during bootup automatically replaced key system files with versions stored in the \OS2\INSTALL directory. Hence, the Secure Workplace user's manual cautions you to copy secure



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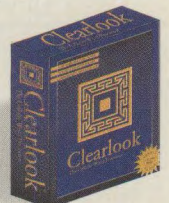
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versions of OS2.INI, OS2SYS.INI, CONFIG.SYS, and STARTUP.CMD over the versions in \OS2\INSTALL. Enter Warp. Warp doesn't do what old OS/2 did. Instead, Warp provides a number of recovery options, including the ability to boot to the OS/2 command line. Whoops! Remember weak link number one?

You could—if you wanted—replace the OS/2 Maintenance Desktop with your secure desktop. This would provide a measure of protection against the Alt+F1 trick. However, it wouldn't protect against someone armed with a set of OS/2 boot diskettes—which is weak link number 3. It quickly becomes evident that a computer with a passworded BIOS might be the only protection against reboot thugs. Of course, someone could also take your system apart with a screwdriver and remove the hard disk. However, if that's a possibility at your workplace are you sure you really want to work there?

Wrap-up

In sum, Secure Workplace—coupled with common sense measures and a lot of setting up—can provide the average business with

a fair degree of security. You will have to work at it, however, to find and close a number of loopholes, such as, but probably not limited to, those mentioned in this review. But even for users who don't need security, Secure Workplace enhances the number of desktop options and provides a number of useful new tools to help you get more out of using OS/2. ♦

Herb Tyson is a computer industry analyst and consultant. He is the author of several books, including Your OS/2 Warp Consultant, Navigating the Internet with OS/2 Warp, the Word for Windows 6 Super Book, and Teach Yourself Web Publishing with Microsoft Word.

AT A GLANCE

The Secure Workplace for OS/2

Syntegration

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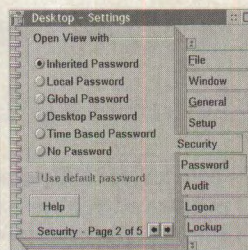
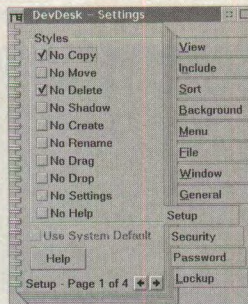
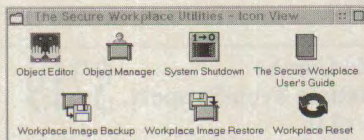
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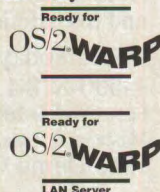
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Reaching Out with RSM

BY MERRILL R. CHAPMAN

Remote Services Management (RSM), formerly known as PolyPM/2, bills itself as "The Absolute Graphical Remote Control Solution." Hmm. Well, it *is* very powerful. The product was developed by the French firm International Software Solutions and is distributed in the U.S. by Software Corporation of American (SCA), Inc., located in Stamford, CT.

Like its major OS/2 competitor, KopyKat 1.1 from Hilgraeve, RSM supports remote file transfers and remote control viewing of a PC. But RSM also allows remote transfer of clipboard contents. And it not only works through a modem, but can also communicate via a wide variety of network protocols, including Novell's IPX, TCP/IP, NetBios, NetAPI, SNA backbones such as X25 and SDLC, ISDN networks, null modem, etc. This widespread network support not only makes the product useful for road warriors who need to phone home, but also network administrators who need to monitor, train and troubleshoot workstations across a distributed environment.

RSM uses a "Manager/Client" metaphor to define the relationship between a remote system and the local one. Within this metaphor, a Manager controls the remote PC while the Client is controlled. Users have the option to buy the light version of RSM, which is suitable for remote operations between a business and a home-based system; the office version, a corporate version which adds extensive network options; or the professional version, which includes powerful scripting capabilities for custom applications. Any workstation can maintain multiple combinations of

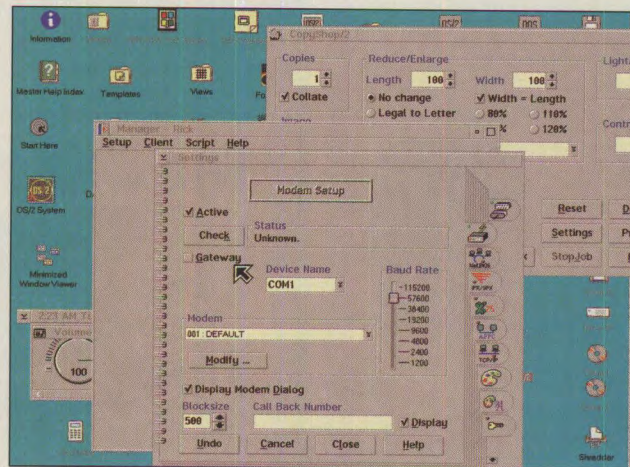
managers and clients from any number of locations. In addition to OS/2 Warp, Clients are available for DOS, Windows and OS/2 1.X. Any PC can have any combination of Manager and Clients loaded. For the purposes of this review, I tested RSM in OS/2 2.1, OS/2 Warp and Windows environments using mixed 1024 x 768 and 640 x 480 resolutions. All computers were connected to 14.4 modems supporting V.32 bis.

RSM has one of the most entertaining installs I've seen on any product—OS/2 or Windows. In a bravura display of multithreading, you'll see balls bouncing, doors swinging, birds flying, etc., while you ponder your choices. I like it! Not only does it look good, it's easy and logical to use; except for the need to type in a 23 digit alpha numeric code to enable your product. It took me three tries to get it right. To make it worse, more codes must be entered when you install a Manager or Client. Seven or eight numbers is

enough. Someone please change this.

Once you're up and running, you'll notice RSM is a sophisticated WPS-specific application with some nice features you don't often see on PC applications, like balloon help (someone's been playing with a Mac at ISS). Please note that balloon help can be turned off if you don't like it. One point I didn't care for is that the program defaults to minimizing to the bottom of your screen instead of the viewer window. RSM's tool bars are free floating, and settings are made via OS/2's ubiquitous tab metaphor.

Users have a wide variety of finetuning options when establishing the Manager/Client relationship. A Client's system can be password protected, can allow the Manager to control the



RSM uses a Manager/Client metaphor to define the relationship between remote and local systems.

DOT EXE

mouse and keyboard or view the Client's system only, download files, upload files, enable an automatic call back (a particularly useful feature for LAN administrators), chat with the Client and even reboot the Client's system. The corporate and professional versions of the product also allow a Client to restrict the Manager's access to only certain directories on the Client's system. The Manager and Client also have the option of establishing what RSM calls a "journal," that is, a log of all remote activity. Users have the option of maintaining multiple journals.

File transfer is flexible and powerful. As befits a multithreaded operating system, files can be transferred in the background without bringing your system to its knees. Users have the option of using the standard wildcards to select files and they can use RSM's criteria function. This includes the ability to pick files by attributes—i.e., size, date, time, day, month, etc., in conjunction with standard Boolean operatives and file size. Once you have created a transfer profile, you have the option of saving it for future use. In addition, file transfers can be prepared off line, thus saving con-

nect charges. Also, when dealing with HPFS to FAT transfers, RSM has a simple utility that allows you to rename an HPFS file name to a valid eight character FAT name. (Oh, how I long for the day when FAT names are a thing of the distant past!)

From the Manager's standpoint, control of the Client is also powerful and flexible. For a LAN administrator, RSM's ability to gather and maintain Clients into groups is invaluable. Once the Manager has access to the Client, the Client's screen can be displayed in a window, full screen mode, or files can be transferred with no remote viewing. A particularly nice feature is that the Manager can mark a Client's screen remotely by turning the mouse pointer into a free form drawing tool. When done, the Manager can clean up the scribbles left on the Client's screen.

RSM's performance was generally good, though screen updates at the Manager's workstation were often noticeably jerky. To be honest, even at 14.4K the host screen response of most remote programs is slow. You'll always be happier with a 28.8K modem. And to be fair, the local lines I used were very dirty.

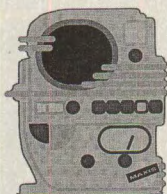
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Remember that your performance with this type of product is heavily influenced by the quality of your connection. File transfers were very quick. Unlike previous versions, this release allows the modem to manage flow control, which can improve performance.

A word to disk compression users: RSM, like previous PolyPM versions, will not run on compressed disks such as those created by Proportional Software and Stacker. (I can personally attest to this. The product locked up my Ambra 425SN which has an E: VDU created by Proportional's DCF. This occurred when it called the RSM.exe from my CONFIG.SYS.) Install and run RSM only on non-compressed disks. This problem needs to be addressed, as one of the biggest markets for this product is notebook users, who also are big users of disk compression.

I also have some major bones to pick with the documentation. To RSM's credit, the manual eschews the "Oliver Twist-like" slimness so in vogue among publishers these days (usually pre-saging long waits on 900 support lines and multiple dial ups to

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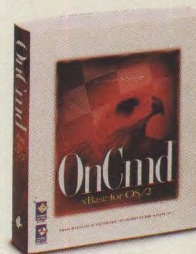


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CompuServe for help). But after reading lines like "in respect of our forests and trees, such book organization saves around 200 pages for this manual," it is clear the documentation was written in France by someone who almost understands American English. The online help system is also full of fractured grammar. I suggest that in the future SCA and ISS have the documentation and help systems localized here (as American publishers likewise should do when selling products overseas).

The documentation's organization, while improved since previous versions, still needs work. First of all, the manual has no index, which is unacceptable. Second, while the installation section has been moved closer to the front of the manual, I found it hard to read and understand. For example, I had to play with the product a few minutes when trying to install the phone number for a Client PC. (The product's connection default is a null-modem, and you have to choose a modem from the pick list before the phone field appears.) It's the kind of thing that happens when you can't refer to an index. The documentation needs a complete revision for the next release. For now, the information seems to be there, though you'll have to dig for some of it.

To sum up, RSM is a powerhouse among remote control programs. It is probably the most full-featured product of its type regardless of whether we're discussing DOS/Windows or OS/2. And the three versions allow you to purchase the power and capabilities you need. Especially if you're a LAN administrator or need to support multiple PC's remotely, RSM is your best solution. ♦

Merrill R. Chapman can be reached via CompuServe at 71333,3472 (or Internet:71333,3472@CompuServe.com)

AT A GLANCE

RSM, Version 3.1

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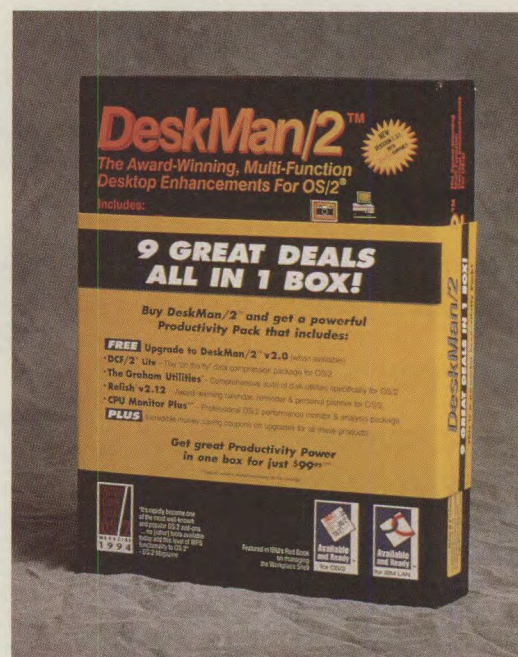
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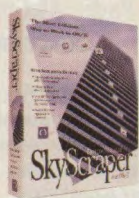
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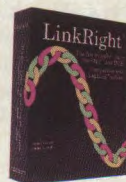
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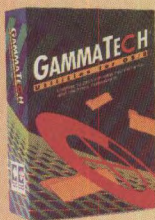
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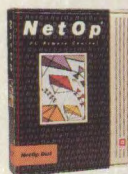
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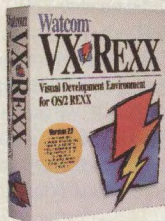
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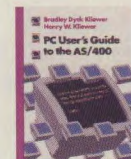
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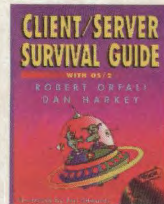
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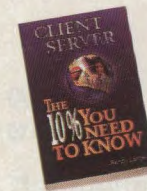
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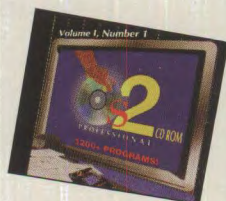
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HANDS ON

17-Inch Monitors: STRETCHING Your OS/2 Desktop

BY GEOFFREY HOLLANDER

Whether you realized it or not, you were inevitably headed for a larger monitor the minute you began working with a graphical interface. The 15-inch monitor has all but replaced the smaller 14-inch once provided with most computer packages. Your first real step toward visual freedom doesn't occur, though, until you are looking at your first 17-inch screen. And once you've looked, you can never go back. Typically, a 17-inch monitor provides 45 to 60 percent more viewing area than a 14-inch monitor, which is especially important for GUI and multitasking systems like OS/2.

We tried out three popular 17-inch monitors: the MAG Innovision DX17F, the Sony Multiscan 17sf and the ADI MicroScan 5EP. We found that many companies offer two price levels in this size. The higher-end product is specifically designed for CAD-CAM, DTP and other graphics-intensive, high resolution applications, while the lower priced models—discussed here—are aimed primarily at the typical user and feature a wider range of application needs.

Certain features were common to all three monitors: Each unit offers 640 x 480, 800 x 600, 1024 x 768 and 1280 x 1024 resolutions, though refresh rates varied from unit to unit (see figure above). All monitors meet the Video Electronics Standard Association's (VESA) Display Power Management (DPMS) video requirements and are fully EPA Energy Star-compliant. Tilt and swivel bases are standard on all models.

Creating hefty images often causes some distortion problems characteristic of larger monitors. Edges of the image can appear concave—that is curving in towards the center—which is called

pincushioning. The opposite effect, or bowing, can be equally distracting. Monitors can distort along only one edge of the screen, creating a trapezoid effect. Another common anomaly, termed *moire*, is caused when the background pattern is out of alignment with the grill (or mask) behind the screen. The resulting pattern is like looking through two overlapping pieces of window screen.

The manual controls will remove most of these problems from your screen. In addition to the normal brightness and contrast adjustments, front-mounted controls adjust the horizontal and

vertical phase (centering the entire image), horizontal and vertical size (sizing the image), pincushioning and bowing (straightening out the image's edges) and tilt (aligning the image with the monitor's frame).

All units also had a degaussing button to dissipate the sta-

tic electricity field that monitors inevitably generate. In addition to the more conventional color controls, some units enable you to alter the proportion of reds, greens and blues, or even the "temperature" of the color mix (from a cool bluish cast to a warmer tone in the yellow-red ranges). This kind of "color-tweaking" capability can bring your display colors into sync with colors used in more exacting graphics projects.

The MAG Innovision DX17F is a well-designed monitor boasting a .26mm-dot pitch for smoother curves and fonts than the usual .28mm. Image size was the largest we tested, with a 16.18-inch diagonal display measurement. The case is streamlined with most of its controls protected by a drop-down cover; contrast and brightness knobs are set apart and exposed for easier access.

	MAG DX17F	Sony 17sf	ADI 5EP
1280 x 1024 NI	60Hz	60Hz	60Hz
1024 x 768 NI	76Hz	75Hz	76Hz
800 x 600	72Hz	75Hz	100Hz

Each of the units tested offers similar resolutions although refresh rates vary from unit to unit.

HANDS ON

AT A GLANCE

MAG Innovision DX17F

MAG Innovision
2301 S. Yale St., Santa Ana, CA 92704
(800) 827-3998, fax (714) 751-5522
List Price: \$729

ADI MicroScan 5EP

ADI Systems, Inc.
2115 Ringwood Ave., San Jose, CA 95131
(800) 228-0530, fax (408) 944-0300
List Price: \$769

Sony Multiscan 17sf

Sony Electronics, Inc.
3300 Zanker Road, San Jose, CA 95134
(800) 352-7669, fax (408) 955-5171
List Price: \$999

All monitors we considered had somewhat different refresh rates at similar resolutions. The DX17F's resolution is good, but it was unable to produce colors as bright as the others. The DX17F's color was also slightly uneven, tending to become less saturated and distinct as it approached the edges of the display. This was most noticeable when the desktop was one solid color. In addition, the DX17F produced the least screen luminosity. MAG Innovision's DX17F comes with a two year warranty on the CRT and one year parts and labor. Estimated retail price for the DX17F is \$729.

The Sony Multiscan 17sf pioneered Trinitron technology—that is, the thin vertical apertures that make up its “.25mm Super Fine Pitch” aperture grille permit more electrons to reach the color phosphors on the screen, creating a resolution equivalent to a .25mm dot pitch. Black screen architecture increases contrast and color integrity so the resulting image is strikingly different. The Trinitron color technology makes colors appear brighter and more uniform, with sharper distinction from one another than

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HANDS ON

the other monitors, which use conventional shadow mask systems. The Multiscan also is able to alter the entire color scheme's "temperature" from a very cool bluish cast (5000 Kelvin) to a warm yellowish color configuration (9300 Kelvin).

Impressive as Trinitron technology is, however, it contains an inherent display quirk that I found very distracting. Wherever the black screen sections overlap (two places in the 17sf), they cast a thin shadow on the screen. It appears as a faint horizontal line spanning the display from edge to edge. Most of the time, these shadows are only distinctly visible against a lighter background.

The Sony's viewable image size is second largest, at 16.1 inches. And it offers the best warranty, with three years for parts and labor and two years on the CRT. Estimated retail price is \$999.

ADI set out to build a monitor that could perform competitively and less expensively alongside units like the Multiscan. Although the 5EP doesn't offer Trinitron technology and has a larger .28mm dot pitch, it has a strikingly similar appearance. In

subjective comparison, the MicroScan placed slightly behind the Sony for consistency, clarity and distinction of color.

The outside dimensions of these monitors are virtually the same, as are their weights. Yet ADI has maximized the design of the 5EP in a way that makes the overall unit seem much less bulky while the display area appears much larger than the other two (in fact, the viewable area is much less, at 15.5 inches). The slim housing frame around the CRT enhances this effect greatly while providing another subtle and valuable feature: because the frame itself has sharp corners instead of rounded ones, it's possible to expand the display right to the edge of the frame without any irregularity. With the Sony and the MAG monitors, bringing the display much closer than 3/16-1/4-inch to the frame's edge will cause distortion at the corners of the display. Estimated retail price for the MicroScan 5EP is \$769. ADI provides a two year limited warranty on parts and labor.

All of these monitors proved to be high quality tools and share many of the same features and specifications. And while spec

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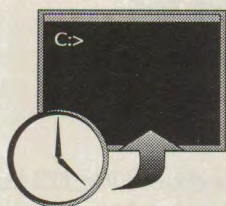
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distinctions are important, they can't successfully define how each unit will actually appear when in use, which is exactly why this kind of comparison is so difficult. The final say on which monitor is best is based on a subjective interpretation of which monitor's display looks the best. While .26mm dot pitch is better than .28, the .28mm may have a much cleaner, brighter, sharper overall screen image due to higher quality phosphors and tighter color registration.

Taking this into account, which is the best? Of the three, the Sony Multiscan 17sf came in first and cost the most. Honorable mention goes to the other two displays, with best buy (price vs. performance and appearance) going to the ADI MicroScan 5EP. ♦

Geoffrey Hollander is the principal of MailPouch, a computer service bureau based in Lake Oswego, Oregon, that serves the direct mail marketing industry. He can be reached via CompuServe at 75202,3527.

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Product News for the OS/2 User

SCOOPS

CD-ROM Reference

On the heels of its American Heritage Dictionary and Roget's II Thesaurus combo, DUX Software plans next month to release a slew of reference works for OS/2 and UNIX, just in time for the holiday shopping frenzy.

Phillip Proffit, of DUX's public relations agency BNI News, said DUX is releasing sports and business almanacs, a dictionary of Wall Street terms, a legal dictionary, a medical and health sciences

dictionary, a book of quotations, a grammar guide, a general almanac and a Columbia encyclopedia.

All those products at once? "Oh yes," Proffit said. "He's [Bob Adams, DUX president and owner] a former NFL tight end—he moves fast." Proffit said DUX hasn't yet decided whether to package the references as a suite or sell them separately. Bill Feeley, vice president of sales for DUX, said the company prob-

ably will decide on a core package, making the other pieces available as add-on modules. DUX will print between 5,000 and 10,000 copies of each, on CD-ROM, for the initial run, Feeley said. Prices were not available at press time.

Proffit said consumer demand will determine whether or not the information also will appear on diskette. "This replaces my bookshelf," Proffit said. "You

know, the one made of a tree."

The new products will supplement DUX Software's American Heritage Dictionary and Roget's II Thesaurus on CD-ROM. The AHD features an intuitive interface and can be linked to the thesaurus. The dictionary works with the cut and paste functions of your word processor or text editor. Also, for you lexo-junkies out there, the dictionary features an anagram function.

News

Hyper communication

Hilgraeve just began shipping the long-awaited HyperACCESS for OS/2, its first commercially available terminal program with a 32-bit graphical user interface.

Matt Gray, president of Hilgraeve, said users will appreciate different features in the new product depending on whether they use HyperACCESS/5, with its character mode interface, or HyperACCESS Lite, the program that comes bundled with the Warp BonusPak.

"Anyone familiar with HyperACCESS Lite will recognize similarities between

the products," Gray said, "although to be sure, HyperACCESS for OS/2 certainly isn't the Lite version with just some added features. HyperACCESS/5 users will find the most obvious differences in the GUI," he continued, "and beyond that, the non-volatile backscroll, the 32-bit technology and the message pad."

Among features any user will appreciate is Hilgraeve's CommSense technology, which recognizes a user's modem, automatically finding available ports and setting the appropriate communication details. Flexible phonebooks show remote systems as icons

that behave as OS/2 desktop objects, allowing you to drag and drop them into OS/2 folders. The new product also has a Host mode that enables the user to answer calls from anyone with modem software. Callers can log on and upload or download files whether you're there or not.

HyperACCESS for OS/2 also includes user-definable buttons and keys, powerful macros and automation, additional terminal emulators and file transfer protocols, Network and LAN connectivity, free bundled online utilities and full documentation and support.

Users should also enjoy the extensive library of ready-to-call online resources, with thousands of BBS numbers and hundreds of Internet providers and Fidonet nodes, the built-in message pad editor, REXX and other external language programming abilities through API's, and crash recovery that resumes interrupted transfers.

Gray said Hilgraeve is pressing 10,000 copies for its first run. "This is a new product, but it reflects a lot of maturity and a strong platform, with many years of developing for OS/2," he said. "In a sense we're our own

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most serious competitor. This release will probably decrease sales for HyperACCESS/5 as sales of HyperACCESS for OS/2 continue to grow, but we won't be discontinuing HyperACCESS/5 by any means."

HyperACCESS is available for OS/2, DOS, Windows, Win95 and Windows NT platforms. Suggested retail price for the OS/2 version is \$129.

OS/2 ranked #1

A summer survey by *PC Magazine* illustrates that OS/2 has the highest user satisfaction rating. Tabulated from 8,435 reader responses, the survey ranks satisfaction on a scale of 1 (not at all satisfied) to 10 (very satisfied).

OS/2 also leads the way in the product support, online help and tutorial categories, according to the survey's results. Trailing closest behind OS/2's lead in the user satis-

faction category is Windows NT and MS DOS. The operating system with the lowest user satisfaction is Windows 3.X.

Arcada buys Sytron

When Arcada bought Sytron two months ago, it saved the acknowledged—if struggling—leader in OS/2 data protection products. Although terms of the deal weren't disclosed, Rob Enderle, senior analyst at Dataquest Corp., estimated Arcada paid less than \$2 million for Sytron, previously a software branch of REXON, Inc.

"Certainly Sytron never really got to the point of making inroads or advancing themselves," Enderle said. "It's really hard to make money in the OS/2 world. Sytron has been struggling since...I'm trying to remember when they weren't. It didn't make sense for REXON to have a software end; it's a very good

thing for both REXON and Sytron."

Arcada claimed its move makes it the data protection leader on three platforms: OS/2, DOS/Windows and Windows NT. Bob Brown, vice president of Arcada's Data Storage Products division, said Arcada also is now the leader in data storage, the LAN Server market and NT, and behind only Cheyenne Software in the Netware market.

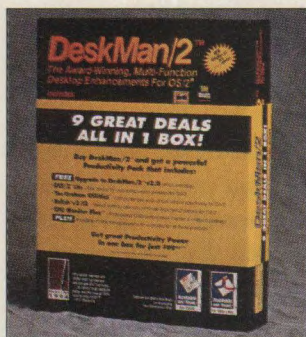
As far as product directions, Brown and David Hallmen, vice president of marketing for Arcada, said the company will continue with its Backup product for Warp for the workstation or client environment, rather than replacing it with a Sytron product. It will reposition Sytron Premium for the LAN Server, adding features to round out its network capabilities. Arcada also plans to release an enterprise product connecting to both envi-

ronments within the next six to nine months. Users can expect a convergence between Arcada and Sytron technologies, resulting in a similar interface.

Sytron's ProServe CX line also will be continued, Brown said, but refocused as a low end, Netware specific product. "The ProServe product had distinct advantages," Brown said, "it had an easy install and it was easy to use; it had a small business target. But it also had two or three features that were high, high end and didn't fit in."

Enderle said Arcada's Sytron buyout probably puts the company first in the standalone market. "For OS/2, this really makes Arcada the vendor of choice," he said. "And for Arcada, it gives them an OS/2 presence very inexpensively, and for big business you need an OS/2 presence."

New Products



Nifty nine

OS/2 users can still get a nine-in-one deal with the DeskMan/2 Productivity Pack from Development Technologies,

(DevTech) Inc. It includes DevTech's DeskMan/2 v.1.51b desktop manager with a free upgrade to version 2.0 thrown in; DCF/2 Lite, an on the fly data compression package from Proportional Software; Relish, the personal scheduler from Sundial Systems; Graham Utilities, a suite of disk, file and general utilities from WarpSpeed Computers; and CPU Monitor Plus, Special Edition, another

package of utility tools from BonAmi Software. List price for the package is \$99.95. At press time the offer was good through mid-November.

Development Technologies, Inc., 308 Springwood Road, Forest Acres, SC 29206-2113. (803) 790-9230, fax (803) 738-0218.

Improve your game

Grier Laboratories is shipping an OS/2 help system add-on

file called OS/2_GAMES_TIPS. Targeted at home users of multimedia PCs, OS/2_GAMES_TIPS is a collection of settings information and customization tricks designed to improve performance of DOS and Windows games. The package lets users display a help window containing a recommended settings list next to the object that needs altering. List price is \$19.95.

Grier Laboratories Inc., PO

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Box 236, Newton, NJ 07860. (201) 383-7447, fax (201) 361-3819.

Games galore

Speaking of games, now available from MSR Development Corporation is the Microlearn OS/2 Game Pack Volume II—a collection of eight arcade-style games. Players may customize difficulty levels for each game. Likewise, Nordic characters Thor and Karin host each game, offering tips and even a few “cheat secrets.”

MSR licensed the games from Microlearn Nordic, of Sweden. List price is \$64.95

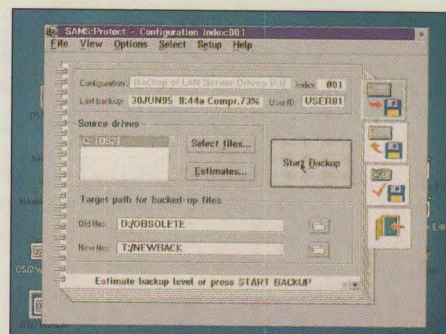
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MSR Development Corp., PO Box 632070, Nacogdoches, TX 75963. (409) 564-1862, fax (409) 560-5868. BBS: (409) 560-5970.

Parallel protection

SAMS:Protect is a new backup utility for OS/2 LAN Server and Workstation environments, providing local backup for workstations, network backup for servers and LAN-to-MVS backup for the enterprise.

According to its maker Software Solutions, SAMS:Protect provides the widest



SAMS:Protect provides local and enterprise backup capabilities.

range of online storage media in an OS/2 data protection product and the highest level of data accessibility via hot disk-to-disk backup. The product uses parallel processing to allow multiple servers to be backed up to multiple tapes simultaneously.

In the event of a system crash, SAMS:Protect runs with a minimal OS/2 install configuration. Its backup index allows easy restoration of files from one server to another and server cloning. List price is \$199 per single-user license.

Sterling Software, Storage Management Division, 11050 White Rock Road, Suite 100, Rancho Cordova, CA 95670. (800) 854-4011, fax (916) 635-5604.

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Conner Storage Systems now supports 4.2GB disk drives and FAST/WIDE SCSI-2 in its CR2-RAID subsystem, boosting storage and performance. The CR2-RAID is a modular dual bay disk subsystem that offers hot-swappable 4.2GB disk drives and power supplies and dual cooling fans. The CR2-RAID transfers data at 20MB per second; average seek time of its drivers

is 9.0 milliseconds. It's easily expandable and is also available in 1 GB and 2GB disk drive configurations. List prices begin at \$3,095 (140DW version).

Conner Storage Systems Group, 450 Technology Park Drive, Lake Mary, FL 32746. (407) 263-3500, fax (407) 263-3555.

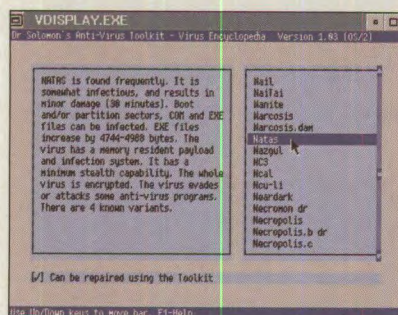
PortUp

SizeUp, a data collection capability for software developers, is now available from One Up Corporation. SizeUp helps developers move OS/2 or Windows applications to other platforms, including Windows NT, Windows 95 and OS/2 Warp.

SizeUp automatically collects non-proprietary statistical data about applications after the user completes an on-line survey. Users then send the results to One Up for analysis, producing an effort factor for porting the applications to the requested target platforms via available tools and services. One Up can also perform the ports for its customers. SizeUp can be accessed from One Up's home page on the Internet World-Wide Web at: <http://www.smallplanet.com/smallplanet/oneup/1uphome.html>. It's also available in library three of the OS/2 Applications Vendor Forum on CompuServe.

One Up Corporation, 5 Campus Circle, Suite 100, West Lake, TX 76262. (817) 962-9567, fax (817) 962-9626.

The doctor is in



Dr. Solomon's Anti-Virus Toolkit for OS/2 keeps your system free from viruses.

S&S Software International, Inc., has introduced its first U.S. version of the British software, “Dr. Solomon's Anti-Virus Toolkit,” as an OS/2 product. The toolkit features a 32-bit Presentation Manager interface, installer and memory-resident, anti-virus scanner that operates at 7MB per second.

Its detection methods flag suspicious code generated by complex encrypted and polymorphic viruses, including the Dark Avenger Mutation

Engine, SMEG and the Trident Polymorphic Engine. It also will scan inside files archived and compressed with PKZip, ARJ, PKLite, LZExe and ICE and will scan recursively—i.e. it can scan inside PKZIP files stored inside ARJ files

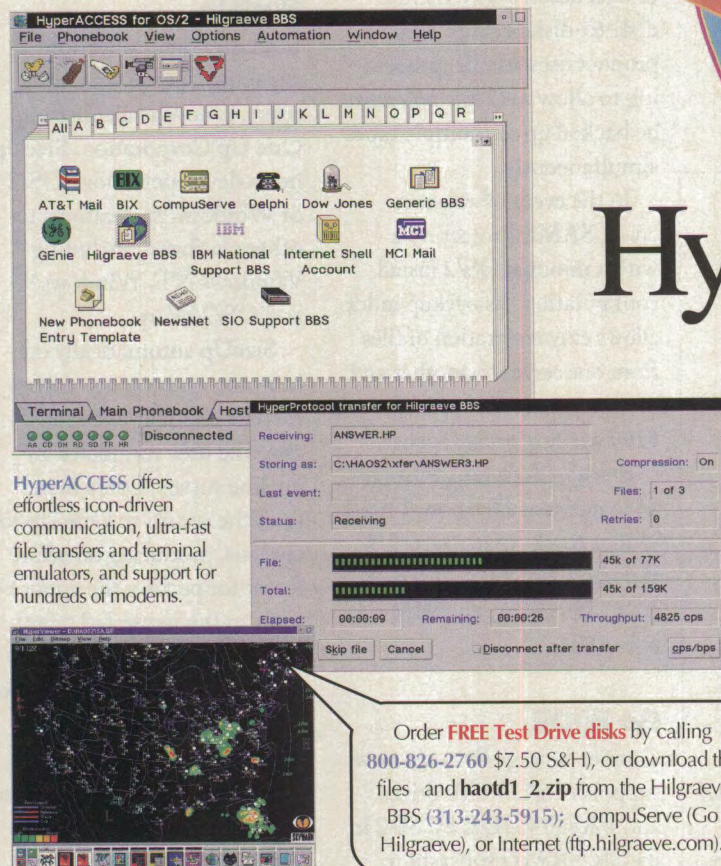
stored inside PKLite files. At the same time, the toolkit's sensors are tuned to prevent false alarms. The interface supports point-and-shoot repairs of virus-damaged files, Master Boot Records and boot sectors. The OS/2 package is \$149. A NetWare 10-user pack is \$1,050. All prices include one year of quarterly upgrades.

S&S Software International Inc., 17 New England Executive Park, Burlington, MA 01803. (617) 273-7400, fax (617) 273-7474.

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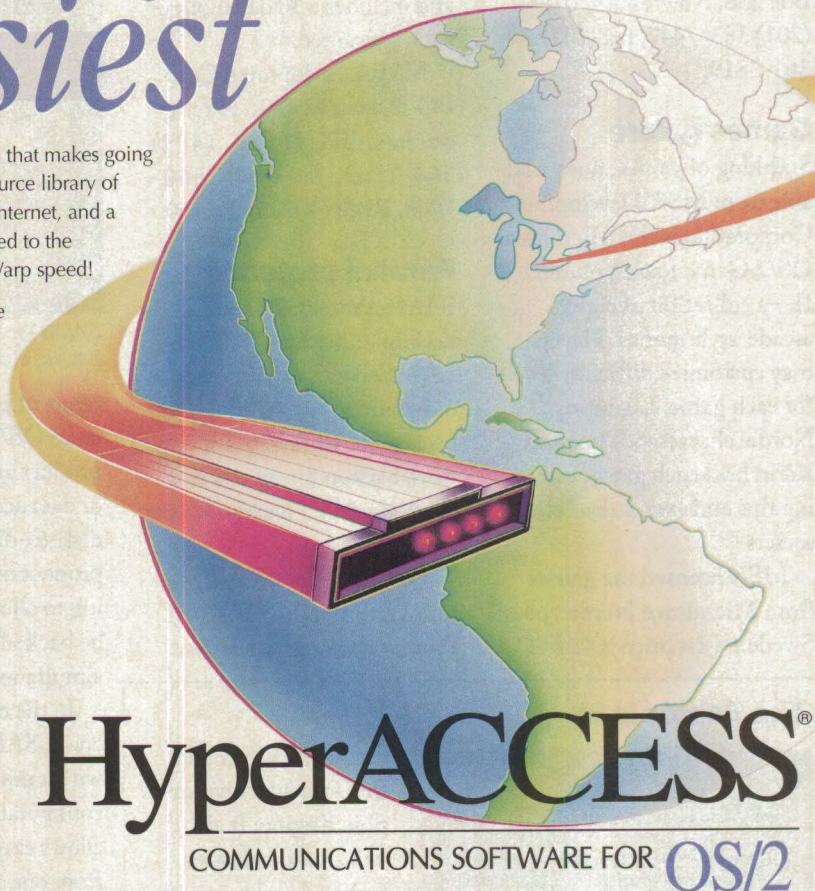
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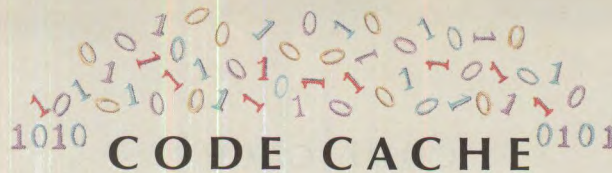
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Porting Windows Applications to OS/2 SMART: Part 2

BY CAREY GREGORY

Last month we presented a broad overview of One Up Corporation's SMART tool. This month we'll take a closer look at some specific issues involved with porting Windows programs to OS/2 and how SMART helps, and doesn't help, in each case.

Having just completed a port of more than 60,000 lines of C and C++ from Windows 3.1 to OS/2 using SMART, I have formed some distinctly caustic opinions on the programming habits of people raised on DOS and Windows. Everything my old computer science professor told me not to do is being done every day by thousands of DOS and Windows programmers around the world. Unlike their UNIX counterparts who have long concerned themselves with portability, the majority of DOS and Windows programmers simply never think about it. After dealing with this for the last several months, I must admit that I get a small degree of pleasure from the image of these same programmers sweating bullets over ports from Win3.x to Win32, which certain industry heavyweights have promised would be a snap.

First and foremost on my list of gripes with bad DOS/Windows programming habits is the firmly held belief that an **int** and a **short** are interchangeable. A close second on my list of gripes is the belief that -1 equals 0xffff. No single item causes more subtle problems in a 16-bit to 32-bit port than these two erroneous assumptions. Unfortunately, SMART does nothing at all for you with problems like this other than providing a vague warning in the documentation that the quality of the code will affect the ease of migration. SMART does not consider C's base data types to be portability issues even though they most definitely are. Consider the simple program shown in Listing 1.

SMART sees nothing here that needs to be changed because there are no system API calls. Unfortunately, a major problem lurks. If you're lucky, the program will trap (as the example does), and you'll find it right away. If you're unlucky, you'll spend days with a debugger trying to find it. The first problem, of course, is that the author passed an **unsigned short** to **GetArrayElement()** when it should have been an **int**. The second problem is that he thinks 0xffff equals -1. Because both assumptions happen to be

LISTING 1

```
char Array[100];
int GetArrayElement(int Index);

void main()
{
    unsigned short    Index = 0xffff;

    char Element = GetArrayElement(Index);
}

int GetArrayElement(int Index)
{
    if (Index == -1)
        return 0;
    else
        return Array[Index];
}
```

true on a 16-bit platform, the program works under Windows 3.1. But when the code is recompiled with a 32-bit compiler, the unsigned value 0xffff becomes 65535 rather than -1 as the author intended. The end result is a nasty bug.

One could argue that finding such errors is the compiler's job, not SMART's. That is true to a certain extent, but the reality of the situation is that most C/C++ compilers in use today will not detect the problem. Neither the Borland C++ for Windows compiler used with the original code nor the IBM CSet++ compiler used with the migrated code generated warnings on these items. If you're working with a large code base, finding each and every occurrence of a problem like this manually is nearly impossible. I highly recommend using a good lint utility on your migrated code. Another option you may want to consider is going through the code and changing every single occurrence of **int** to **short** before running SMART against it. Of course, this leaves you with a 16-bit program running on a 32-bit platform, but at least

CODE CACHE

you avoid many subtle errors.

All of this leads to one very important fact that you must keep in mind if you intend to use SMART to migrate your code: SMART identifies a given list of keywords (API functions and data types) and converts them to the target platform's equivalent. While it does a fairly good job of this, in most cases this is by no means the whole job, and it certainly isn't the hard part.

So what are the hard parts? First and foremost are the inherent architectural differences between the source and target platforms. This is an aspect you must examine very carefully when planning a port. For example, if the program uses hardware interrupts, major changes will be required at the architectural level. You will probably have to write or buy a device driver for OS/2 to handle this. While this will result in cleaner, more reliable, more maintainable code, it will almost certainly require major structural changes to the program. The same is true if the program relies on a VxD. All of the functionality contained in a VxD will have to be moved either into the application itself or a device driver. Another area that frequently causes problems is polling algorithms. It's usually possible to port these as is, but the end

result is not at all palatable under OS/2. It's an enormous waste of system resources, and with OS/2's rich selection of event management and IPC mechanisms, there are far better ways to accomplish the task. Although it would be wonderful if SMART could assist you with architectural changes to your program, it's understandable why it can't. These problems are far too abstract to address with a parser and code generation utility.

Another area of concern in your port is the use of class libraries such as ICLUI, OWL and MFC. Many applications written in the last few years take advantage of such libraries, especially for managing the user interface. Unfortunately, SMART does not support class library conversions. If there was one single item I would ask One Up to add to SMART it would be conversion databases for the major class libraries. The lack of this capability had a huge impact on our recent porting effort. The application had been written using the Borland OWL for Windows library for the user interface. Our original plan was to use the new Borland C++ and OWL for OS/2 compiler and class library, thereby eliminating the need to replace some 30,000 lines of user interface code. This was a good plan on the surface, but we quickly

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found that the Borland product was by no means ready for prime time. After investing more than two months of effort, we finally gave up and abandoned OWL. We elected to replace Borland C++ and OWL with CSet++ and ICLUI. Although the compiler conversion was not difficult, the class library conversion turned out to be far more difficult than anticipated. OWL and ICLUI have enough common functionality that you can find the correct classes and methods to use in almost every case. The problem is the subtle differences in behavior between the two libraries. Events that occur under one either don't occur under the other or do so slightly differently. Messages come in slightly different order and timing, defaults vary slightly, and so on. The net result is large numbers of subtle bugs and therefore far more work finishing the conversion than would be indicated by even a careful analysis. Although it would be extremely difficult for SMART to handle such subtle behavioral problems, it could easily handle the actual conversion, just as it does with the system APIs. This would be an valuable feature for SMART.

The one deficiency in SMART that greatly surprised me was the nearly useless help and resource file conversion functions. We

spent a great deal of time attempting to convert resource and help files with SMART and several other tools that claimed to be able to do the job. None were able to do so adequately. Although most programmers find help and resource files boring tasks, they nonetheless remain essential components in any application, and porting them should not be a major difficulty. This is an area where One Up must focus some attention if its tool is to be truly first class.

All in all, the One Up Corporation has a powerful and useful tool in SMART, despite its limitations, and IBM is wise to include it at no additional charge on the Developer's Connection CD. It can only have a positive impact on the availability of native OS/2 applications, and it goes without saying that that would be a welcome turn of events for OS/2. ♦

Carey Gregory is the president of Gateway Technologies Corporation of Canton, Connecticut, a consulting and software development firm specializing in OS/2, Win32 (and UNIX when feeling nostalgic). He can be reached via the Internet at careyg@bix.com or on CompuServe at 71034,2205.

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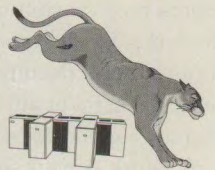
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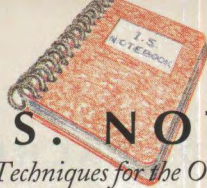
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THE I.S. NOTEBOOK

Tips and Techniques for the OS/2 Professional



A Desktop Within a Desktop: OS/2's Work Areas

BY TONY PEREIRA

If, like most OS/2 Warp users you've overlooked Work Area folders, you're missing a powerful productivity feature of the Workplace Shell. You can use them to quickly start and stop project related work. Moreover, Work Area folders can minimize desktop clutter. Also, some Workplace Shell "aware" products like IBM Works, included in the Bonus Pak, further enhance the productivity of a Work Area folder.

Everyone is familiar with folders. After installation, OS/2 migration places several folders on the desktop—OS/2 programs, Windows programs and DOS programs, for example. Each of these contains similar categories of program objects. Physically, a folder is represented on your disk drive as a directory. In addition to other folders, it can contain documents, spreadsheets, reports, charts or any objects or files that are supported in your system.

A Work Area is simply a folder with special properties. When minimized, every open object in the Work Area also minimizes. When closed, every open object in the Work Area also closes. When you next reopen or maximize the Work Area, everything inside opens to where you left off. Thus, using Work Area folders for grouping project related work not only keeps everything together—it enables you to easily resume work where you last stopped.

Create a Work Area.

- Open the Templates folder.
- Drag a Folder template to your desktop.
- Right click on the new folder and open the Settings.

- Click on the File tab of the notebook.
- Click the Work Area checkbox. (The folder is now a Work Area folder).

To reduce clutter in your Minimized Window viewer you may optionally click on the Window tab and select the radio buttons Minimize and Minimize Window to Desktop. You may add objects to the new Work Area as you would any other folder.

Sample the power of a Work Area with two simple files.

- Open the Templates folder.
- Open the Work Area folder.
- Drag a Data File template to the new Work Area.
- Drag a second Data File template to the Work Area.
- Open both data files in the Work Area (this will invoke the Systems Editor twice).
- Drag one of the open data files a bit to the side so that you can see both at the same time.

Next, Minimize, then Show and finally Close the Work Area. Each of these functions likewise minimizes, resurfaces and then closes the System Editor Windows. The next time you open this Work Area folder, both System Editor text objects will be opened and displayed.

Organize your office tasks using IBM Works in a Work Area.

- Create and open a Work Area folder.
- Open the IBM Works folder.
- Hold the left mouse button down while you drag it over three templates in the IBM Works folder: Sheet, Document and Chart. This should highlight all three.

- Drag all three icons from the IBM Works folder to the Work Area.

At any time, closing the Work Area folder will automatically close the Document, Spreadsheet and Chart. Reopening the Work Area will reopen these documents and position them where you left off. You can further enhance your project model by linking documents associated with the project (see the next tip).

Create linked IBM Works documents in your Work Area.

- Open the Spreadsheet. Insert column and row data into the spreadsheet as shown below.

	A	B	C	D	E	F	G	H
1	Product Sales Report							
2								
3		Jan	Feb	Mar	Apr		Totals	
4								
5	Micro Center	45	56	99	101		301	
6	Elek Tek	24	27	55	62		168	
7	Indelible Blue	164	90	250	100		504	
8	OS/2 Express	225	75	200			500	
9	CompUSA			308	433		741	
10	Other	42	48	55	64		209	
11								
12							2493	
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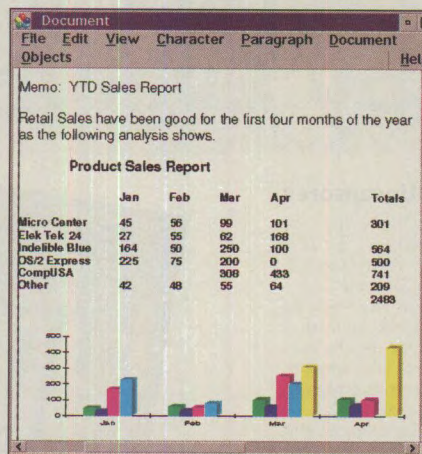
- Place the mouse pointer onto cell A3 and hold down the left mouse button while moving to E10 to select the block.
- Select Edit Copy (or Ctrl-Ins) to place the data block in the clipboard.
- Open the Chart and press the Paste button in the Data Input dialog box.
- Check both Use first row as labels and Use first col as labels and press OK.
- Press Save to finish the chart.
- Open the Document. Type the appropriate text to introduce the figures.
- Return to the Spreadsheet and select cells A1 through G12, then Edit Copy again.

THE I.S. NOTEBOOK

- Return to the document and select Edit Paste Link. This creates an automatic link with the spreadsheet for dynamic updates. Subsequent updates of the Spreadsheet will automatically update the figures in the document.
- Return to the Chart and select Edit Copy.
- Return to the Document and select Edit Paste Link to paste the Chart to the document. The Document should now look like the figure at right.

Now, not only will the files in the Work Area open and close to your last working configuration, but data will remain synchronized between documents as you work.

Create a Work Area template in your Projects folder to simplify Work Area creation.



- Create a Projects folder by dragging a Folder template onto the desktop.
- Rename the folder to Projects. Place the mouse pointer on the name, Folder, and press the Alt-left mouse button and type the new name.
- Open the Projects folder and drag a Folder template into the open projects folder.

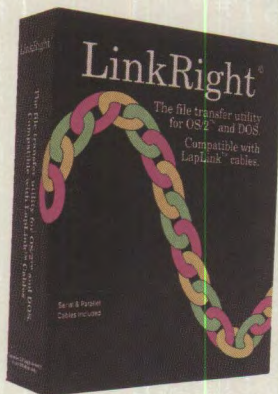
- Rename the folder Work Area and open the settings.
- Select the File tab of the settings notebook and click on the Work Area checkbox.
- Select the General tab and click on the Template checkbox.
- Close the settings notebook and you'll see the new Work Area template in your Projects folder.

You can now drag Work Area templates into the Projects folder to create new Work Area folders. Be sure to give each new Work Area a meaningful name! ♦

Tony Pereira is the President of Clear & Simple, Inc., publisher of Performance PLUS V3—A Tuning and Utility Kit for OS/2. He is also the founder of the OS/2 Vendor Council and was named the 1994 OS/2 Pro of the Year.

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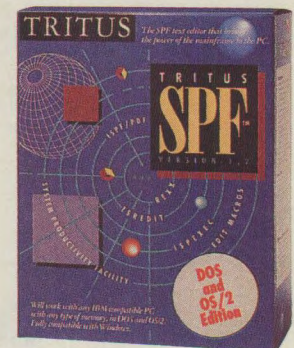
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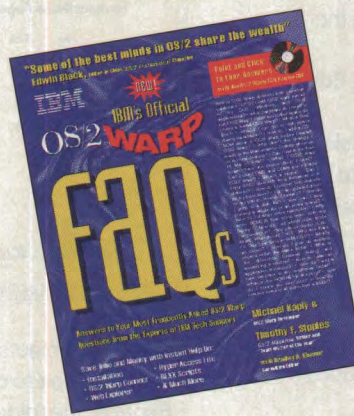
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EXPERT AUTHOR PROFILE

Peter G. Magid (Boca Raton, FL) is the User Interface Design Lead for the Workplace Shell and has over 12 years of programming experience at IBM. He is a graduate of Tulane University, and holds a B.S. degree in Computer Science.

Ira H. Schneider (Boca Raton, FL) has focused on enhancements to the Workplace Shell and has over 25 years of experience with IBM. He has held numerous lead programming positions within IBM and graduated from Northeastern University with a B.S. degree in Electrical Engineering.



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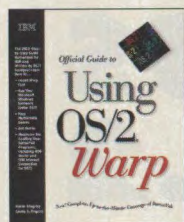
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EXPERT AUTHOR PROFILE

Mike Kaply (Boca Raton, FL) is currently on the OS/2 Help Manager Development Team at IBM in Boca Raton, Florida. He holds a B.S. degree in Mathematics and Computer Science from Southern Methodist University.

Timothy F. Sipples (Chicago, IL) is an OS/2 Warp specialist from IBM. He has written for OS/2 Magazine and was named “Team OS/2er of the Year” by OS/2 Professional.



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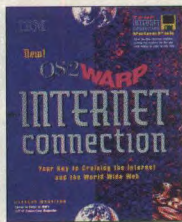
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EXPERT AUTHOR PROFILE

Karla Stagray and Linda Rogers (Boca Raton, FL) both have a unique understanding of computer software and hardware. As award-winning IBM writers, Stagray and Rogers have received Society of Technical Communicators awards for various endeavors.



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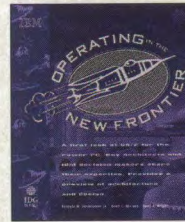


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EXPERT AUTHOR PROFILE

Deborah Morrison (Raleigh, NC) is an award-winning IBM writer who specializes in TCP/IP and the Internet. She is currently the editor-in-chief of IBM's *TCP/IP Connection* quarterly magazine.



Official OS/2® Warp Connect, PowerPC Edition: Operating in the New Frontier

by Ken Christopher, Scott Winters & Mary Pollack Wright
ISBN: 1-56884-458-1
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EXPERT AUTHOR PROFILE

Ken Christopher (Boca Raton, FL) is Program Director of Development for OS/2 for the PowerPC. He has been a key player in the development on OS/2 Warp.

Scott Winters (Boca Raton, FL) is lead architect of OS/2 for the PowerPC. He has been instrumental in the development on OS/2 Warp on the PowerPC platform.

Mary Pollack Wright (Boca Raton, FL) is currently the technical editor for the OS/2 Technical Library. She has been part of the OS/2 team since 1985. Her technical articles on OS/2 have been published in the *OS/2 Developer* magazine and *OS/2 Notebooks*.

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BOOKSTAX

Designing High-Powered OS/2 Warp Applications: The Anatomy of Multithreaded Programs

by David E. Reich, John Wiley & Sons, Inc., 336 pages, \$34.95

REVIEWED BY KEN MACKIN

This book promotes the design values that make OS/2 better than many other operating systems. It describes the architectural aspects of OS/2 from a programmer's perspective, giving you a sense of how to envision the design process properly. While written for the specific case of OS/2, the principles of system development expressed here are broad enough to shed light whether your platform is OS/2, UNIX or even Visual Basic.

If you follow David Reich's advice, you will be in the proper mindset to lay out effective object-oriented applications. But Reich doggedly avoids making this a how-to book. I would call it a "show-to-think-about-how-to" book. There are no recipes in this cookbook—it's Zen and the Art of Application Development.

Some of the book's chapters explain (or perhaps justify) OS/2 as a desktop platform. Included are the basic concepts of multithreading and chapters titled, "Why Program for OS/2?" and "OS/2 as a Development Platform." It then heads off for the fruitful waters of "Overall Application Design." Other chapters focus on the Presentation Manager and the elegant Workplace Shell, multimedia, working with the kernel and ring structures, and so on.

Interestingly enough, Reich tips his hat by also including two chapters that beg major and long-standing OS/2 problems: installation and device drivers. Reich specifically addresses the importance of a properly-written and extensible installation program. He obviously sees clear value in the first impression that a perfect installation creates in a user's mind.

Reich's book is not for an experienced programmer, nor is it even for a serious programmer new to OS/2. It's aimed at programming novices, and Reich clearly wants to convince those developers that OS/2 is the way to go. As such, the book also serves what might be an unintentional purpose: it's a nice introduction to OS/2 as an excellent operating system worthy of developer and user investment, writ-

ten in understandable non-programmer-speak.

At times, its self-serving "come on folks, develop for OS/2 and make millions" tone is a little too much to take. But consider the source. Reich and his team of programming gurus down in Boca have poured their hearts into this operating system.

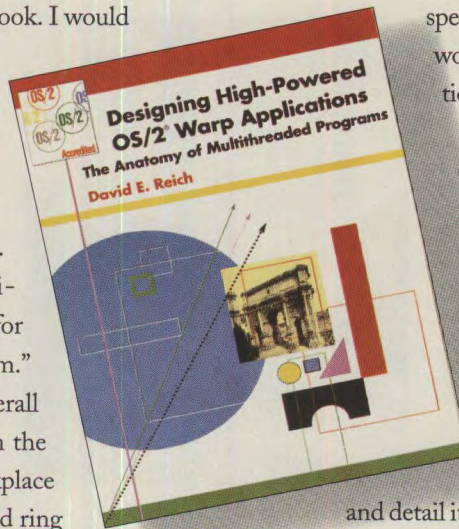
Several of the book's sections address the architectural differences between the PowerPC and Intel versions of OS/2 Warp. Clearly Reich was not planning on the delays that have affected delivery dates. These sections are useful for those who have spent a lot of time working in the X86 and Pentium worlds and are curious as to what services and functions the PowerPC might provide.

The book unfortunately skimps on handling errors effectively. A careful programmer will design intelligent error messages that point to solutions with clear, concise language. Nothing annoys end users more than a program that speaks to them in binary sequences while it digs its own grave.

At \$34.95, *Designing High-Powered OS/2 Warp Applications* is somewhat overpriced for the level of technical content and detail it delivers. If you expect it to give you everything you need to begin successful OS/2 development, you will be disappointed. What it does deliver, in an accessible way, is an excellent primer on system design in the age of objects. Object-oriented programming absolutely requires that most of the development work take place before you sit down at the keyboard. If you have the basic architecture laid out properly, 60 percent of the trouble will be behind you. This includes screen layouts, menus and dialogs.

Despite some of its shortcomings, Reich's book is instructive. We need systems that take off the glasses, look users in the eye and tell them "every little thing's gonna be all right." ♦

Ken Mackin is Manager of Systems Management Strategy in the Emerging Technologies Group at Intel. He can be reached at 76004.3026@compuserve.com.





What can you do with OS/2 that you can't do with Windows 95?

I'd like to know. Send mail to jerry@bix.com.

BY JERRY POURNELLE

I've never been closely wired into the journalistic net. I work at home, not at an office full of journalists, and while I do spend a fair amount of time fooling with small computers in addition to writing about them, I also do other things like write books.

I say this because every now and then a general consensus emerges among journalists, and I never know how it happens. One day I'll be the only person I know of with a certain opinion, and the next day everyone believes it.

Case in point: everyone now agrees that Microsoft's long term strategy is "On to Cairo." Windows 95 is a combination way station, bookmark and testing ground for the true 32-bit OS that will evolve out of Windows NT. I've known that for years; now everyone does.

Second, everyone now agrees that IBM, having decided it really doesn't know how to market OS/2 to consumers, is going all out to hold onto the corporate market. This is not a bad strategy—consolidate your hold on what you have before you expand.

To that end, Brodeur and Partners, OS/2's PR firm, has been sending journalists a document called *15 Questions to Ask Microsoft about Windows 95*. They're not bad questions. Some are trivial, but some are matters of real concern. All are rather mean spirited, betraying their Team OS/2 origin.

They're also technical and not likely to mean much to the average user, but that's all right. They're intended for a different audience. IBM doesn't mind planting a bit of Fear, Uncertainty and Doubt about Windows 95 among consumers, but where they really want to raise the FUD level is in corporate management. "Do we dare trust mission critical operations to Windows 95?" Not a bad strategy, but there are two problems. First, see point one above: Microsoft isn't trying to push Windows 95 into the corporate mission critical market. That's NT's job. The second is more serious: OS/2 has a serious flaw of its own.

There are many ways to crash an operation in Windows 95. I've found several of them. I can "recover" from most with Ctrl-Alt-Delete, which offers me the opportunity to shut down the application while leaving the rest of the system intact.

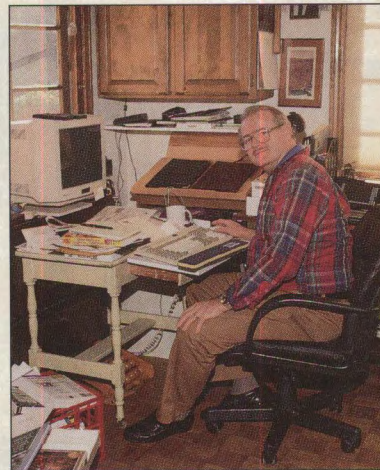
There aren't as many ways to bring down OS/2. I can do it by trying to run certain games in a DOS window inside Windows Program Manager in WIN-OS/2, but that's a silly thing to do. Yesterday, though, I had a crash that scares me.


OS/2 prints so much more conveniently than Windows that I use an OS/2 Warp Connect machine as my network print server. Yesterday I had Microsoft Word 6.0c up on that OS/2 machine. I wasn't doing anything with it: it was just there under WIN-OS/2. I told another machine to "Print Screen," meaning that it sent the print job across the net to the OS/2 machine. Somehow that locked up the system. Clicking "OK" on the error message did nothing. Neither did Ctrl-Esc. Nothing I could do would get me back to the desktop. I was dead.

With Windows you can Ctrl-Alt-Del to close a locked application. It doesn't always work: a couple of minutes ago we crashed Win 95 by sending it a file over ethernet while the Pentium was logged onto the Internet, and nothing worked; but Ctrl-Alt-Del will usually close the application without killing everything else. The closest thing OS/2 has is the close option from the task list (Ctrl-Esc), which is neither sufficiently robust nor particularly convenient.


Neither of these crashes are reliably repeatable; but they happened. I've reported them to both IBM and Microsoft, and I don't doubt they'll do something.

I've said this before, but it's worth repeating: for OS/2 to be the mission critical OS, it needs an absolutely foolproof way to get back to the desktop so you can close a bad application. We can live with an application crash, but it's no fun if the print server goes with it. I'll bet you anything that Microsoft knows that. ♦

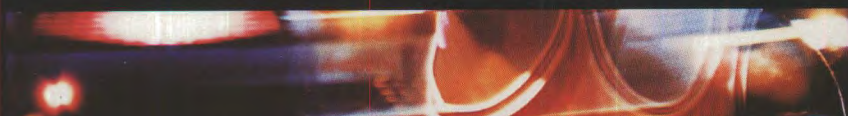





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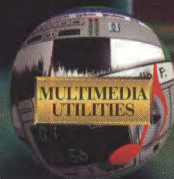
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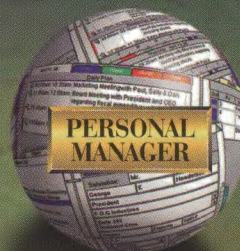
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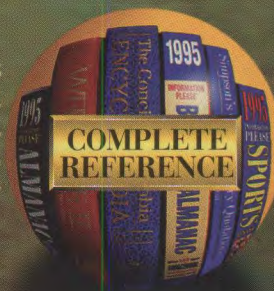
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